Semiannual Groundwater Monitoring Report Spring 2014

Palermo Wellfield Superfund Site
Tumwater, Washington

for
Washington State Department of Transportation

February 24, 2017

GeoEngineers
Earth Science + Technology

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1101 South Fawcett Avenue, Suite 200
Tacoma, Washington 98402
253.383.4940

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File No. 0180-121-09

February 24, 2017

Prepared for:

Washington State Department of Transportation
P.O. Box 47358
Olympia, Washington 98504-7358

Attention: Norm Payton

Prepared by:

GeoEngineers, Inc.
1101 South Fawcett Avenue, Suite 200
Tacoma, Washington 98402
253.383.4940

Lara M. Linde, LG
Geologist

Nick E. Rohrbach
Environmental Scientist

Michael E. Hutchinson, LG, LHG
Principal

LML:NER:SBS:MEH:ch

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ACRONYMS AND ABBREVIATIONS

ASAOC	Administrative Settlement Agreement and Order on Consent for Response Actions
BGS	Below Ground Surface
COC	Chain-of-Custody
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
FSP	Field Sampling Plan
GPM	Gallons per Minute
PCE	Tetrachloroethene
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RG	Remediation Goal
ROD	Record of Decision
SAP	Sampling and Analysis Plan
SOP	Standard Operating Procedure
SOW	Statement of Work
TCE	Trichloroethene
VOA	Volatile Organic Analysis
VOC	Volatile Organic Compound
WSDOT	Washington State Department of Transportation
µg/L	Micrograms per Liter

1.0 INTRODUCTION

This semiannual groundwater monitoring report was prepared to summarize Spring 2014 groundwater, subdrain, and treatment lagoon monitoring results at the Palermo Wellfield Superfund Site (Site), U.S. Environmental Protection Agency (EPA) ID: WA0000026534, in Tumwater, Washington (Figure 1). Between 2002 and 2012, semiannual groundwater monitoring was conducted by EPA as part of the remedy selected for the Site and documented in the Record of Decision (ROD) dated November 16, 1999 (EPA, 1999). The EPA began monitoring groundwater semiannually for tetrachloroethene (PCE) and trichloroethene (TCE) as part of the long-term monitoring program. The Washington State Department of Transportation (WSDOT) began groundwater monitoring at the Site in March 2013, in accordance with the Statement of Work (SOW) outlined in the Administrative Settlement and Order on Consent for Response Actions (ASAOC) between the EPA and WSDOT, CERCLA Docket 10-2012-0149, effective July 6, 2012 (EPA, 2012). GeoEngineers, Inc. (GeoEngineers) is providing services to WSDOT under contract Y-11407, effective July 1, 2013.

In the spring of 1999, EPA began operating an air stripping treatment system at the Palermo Wellfield to remove TCE contamination detected in production wells TW-2, TW-4 and TW-5 at the Palermo Wellfield. Operation and maintenance of the groundwater treatment system is currently the responsibility of the City of Tumwater (City) based on an agreement with EPA.

PCE and TCE also were detected in samples of surface water ponded in the yards and crawl spaces of homes near the base of the bluff. A subdrain system and treatment lagoon was constructed in 2000 to lower the groundwater table beneath the nearby homes and remove the PCE and TCE from the water (Figure 2). The purpose of the subdrain and lagoon system was to lower the groundwater elevation beneath the homes west of Rainier Avenue to at least 18 inches (1.5 feet) below the bottom of the crawl spaces. This reduction in water level elevation, as noted in the ROD, was aimed at reducing the risk of potential vapor intrusion into the homes from shallow groundwater containing PCE and TCE.

The subdrain system includes a subgrade perforated piping network installed behind and between the seven southern-most houses west of Rainier Avenue. The main perforated pipe or "trunk drain" is aligned through the backyards of the houses (Figure 2). Groundwater entering the perforated pipe flows to an unperforated "tightline" pipe beneath Rainier Avenue and M Street. The water exits the tightline pipe at a treatment lagoon located at the City of Tumwater Municipal Golf Course. PCE and TCE are removed from the water in the lagoon by surface aeration and treated water then flows to the Deschutes River by way of an existing water course. Following construction of the subdrain and treatment lagoon and performance verification, a monitoring and maintenance program was established and implemented by the Washington State Department of Ecology (Ecology). Ecology monitored the subdrain and lagoon system performance between 2002 and 2008. In November 2009, EPA assumed the lead for the performance monitoring of the subdrain and treatment lagoon system. WSDOT began subdrain performance monitoring in March 2013.

2.0 SCOPE OF WORK

The following activities were performed for the Spring 2014 groundwater monitoring event, which was generally completed using procedures presented in the *Field Sampling and Analysis Plan – Semiannual Groundwater Monitoring, Palermo Wellfield Superfund Site* (FSP), and *Amendment Operation and*

Maintenance Manual Subdrain System and *Treatment Lagoon Palermo Wellfield Superfund Site* (subdrain monitoring plan) (GeoEngineers, 2013a and 2013b):

- Collected groundwater water samples from 52 groundwater monitoring locations (29 monitoring wells, 15 piezometers, three production wells, one air stripper and four seeps).
- Collected water samples from nine subdrain and treatment lagoon locations
- Measured sediment accumulation and discharge rate at 11 subdrain and treatment lagoon locations.

This semiannual report provides a summary of the groundwater data obtained from the Spring 2014 sampling event. An annual groundwater report for 2014 will be prepared and will provide information for both the Spring and Fall 2014 groundwater monitoring events in accordance with ASAOC SOW.

3.0 FIELD ACTIVITIES SUMMARY

This section describes the sampling methods used to perform the groundwater, subdrain and treatment lagoon monitoring in general accordance with the FSP and the subdrain monitoring plan (GeoEngineers, 2013a and 2013b). Well attributes and water level elevations for the Spring 2014 sampling are presented in Tables 1 and 2, and Figure 3. Groundwater monitoring field forms are provided in Appendix A.

3.1. Monitoring Wells

A total of 29 monitoring wells were sampled as identified in the FSP (GeoEngineers, 2013a). Monitoring well MW-ES-08 was not sampled during this event, with EPA concurrence (Section 6.0). With the exception of one well location (MW-93-02), samples were collected using a portable Grundfos submersible pump. A peristaltic pump was used to collect the sample from MW-93-02 because an obstruction (stick) was present in the well casing that did not allow clearance for a submersible pump. Field parameter measurements were recorded using a YSI multi-parameter water quality meter and a Hach 2100Q turbidimeter.

Depths to groundwater measured in the monitoring wells are listed in Table 2, including calculated groundwater elevations. Groundwater depth in the monitoring wells ranged from 2.09 feet above ground surface (artesian) at monitoring well MW-ES-10 in the Palermo neighborhood to 49.39 feet below ground surface (bgs) at monitoring well MW-104B on the bluff west of the neighborhood. Groundwater flow direction was consistent with previous monitoring events, and is estimated to be east-northeast, toward the Deschutes River.

3.2. Palermo Wellfield Locations

Three production wells and one air stripper tower were sampled at the Palermo Wellfield. The second stripper tower was not sampled because it was offline. Consistent with the FSP, no field parameters were measured at these locations.

3.3. Groundwater Seeps

Three seep samples were collected from permanent seep monitoring stations, established in Spring 2013, along the base of the Palermo Bluff (Seeps 1, 2 and 3) using a peristaltic pump. The forth seep sample (Seep 5) was collected directly from the drainage ditch. Seep samples were collected after three sets of

field parameters were collected. Seep locations are shown on Figure 2. Seep 4 is not an established monitoring location.

3.4. Piezometers

Fifteen piezometers in the Palermo neighborhood and along the base of the bluff were purged and sampled in accordance with the FSP with the exception of piezometer PZ-709, as discussed in Section 3.6.

Depth to groundwater measured in the piezometers in the Palermo neighborhood is listed in Table 2, along with calculated groundwater elevations. Groundwater depth in the piezometers ranged from 0.99 feet above ground surface (artesian) in piezometer PZ-722 to 4.44 feet bgs in piezometer PZ-704 (Figure 4). Assuming each home's crawl space was approximately 1.5 feet in depth, a reduction of 3 feet from ground surface in the piezometers along Rainier Avenue represents the compliance point. The northern-most piezometer along Rainier Avenue (PZ-720) met the 3 feet reduction in water level described in Table 4. The water level at piezometer PZ-721 was 2.9 feet bgs, slightly less than the compliance depth. The groundwater level at piezometer PZ-722 was above ground surface, indicating artesian conditions at this location. As a result, the performance criteria were not met for the five southern-most homes along Rainier Avenue (Table 3).

3.5. Subdrain and Treatment Lagoon

Subdrain and treatment lagoon performance monitoring includes sediment accumulation, water level and flow rate measurements, and analytical data collection. The following sections describe the methods used to collect the data for the subdrain and treatment lagoon performance monitoring.

3.5.1. Water Level and Sediment Accumulation Monitoring

Water level and total depth measurements were collected using a water level indicator and surveyor's stadia rod at eight cleanouts (CO-1 through CO-8) and three catch basins (CB-1 through CB-3) in the subdrain system (Table 3). These measurements were collected to evaluate whether sediment is accumulating in the subdrain at thicknesses that exceed the performance criteria for the system, and to estimate flow volume. General observations of the cleanouts and catch basins are presented in Table 3. The treatment lagoon total depth is measured once a year and was not measured during the Spring 2014 monitoring event.

Sediment accumulation was observed in all of the cleanouts measured. The measured total depths differed, at the most, by +0.63 feet (in CO-8 near the head of the subdrain) from the original depths recorded in February 2001 (Table 3). Cleanout CO-8 exceeded the 0.5 foot threshold performance criteria for sediment accumulation established in the Subdrain O&M Manual (URS, 2002). Since construction, cleanout CO-4 has consistently been at least 0.4 foot less than the original reported depth.

Sediment does not appear to be accumulating in the tightline catch basins when compared to the total depths measured in February 2001. Total depth measurements from the catch basins (CB-1, CB-2, and CB-3) were not significantly different (less than ±0.32 foot) from the baseline depths measured in February 2001.

3.5.2. Water Flow Rate Measurements

Flow rates were measured or attempted at eight cleanout stations, three catch basins, and six outfalls. The flow rate at Station 356, upstream of the treatment lagoon, was not measured because wide slow conditions prevented accurate flow measurement. No flow was observed at Station 362. Flow rates were used to calculate the flow volume at each station as shown in Table 5.

3.5.2.1. Subdrain and Tightline Outfall

Flow volumes from the south end of the subdrain (Station 357 [CO-6]) to the north end (Station 359 [CO-1]) represent the cumulative net groundwater inflow to the perforated pipe and range from 23 gallons per minute (gpm) at Station 357 (CO-6) to 179 gpm at Station 259 (CO-1).

Flow volume at Station 360 (tightline pipe outfall), which represents the total flow from the subdrain system, increased from the flow volume from Station 359 (north end of the perforated pipe). The flow volume at Station 360 was measured as 201 gpm, as compared to the flow of 123 gpm at Station 359. Since subdrain monitoring began in December 2002, calculated flow volumes at Station 360 have varied from the calculated flow volumes at Station 359. This reason for the difference in flow volume is unknown, but may result from inflow to the subdrain between Station 359 (CO-1) and the connection to the tightline or differing velocity measurement methods between the two stations. Velocity at Station 359 is measured below ground from subdrain Cleanout CO-1. Velocity measurements at Station 360 are measured from the end of the tightline pipe that drains into the lagoon.

3.5.3. Other Inflows to Lagoon

The flow volume at Station 350 (M Street storm drain outfall) was 201 gpm. Station 362, which is usually dry, had no flow during this monitoring event. At Station 356 (upstream of lagoon), water was present but a flow rate could not be measured because the stream has become too wide and overgrown with vegetation to access safely. As in previous monitoring events, flow rates at Station 356 were not measured. Since the installation of the lagoon in 2000, flow in the watercourse at this location is wide and slow, making an accurate flow measurement difficult.

3.5.3.1. Lagoon Effluent

Flow volume from this pipe was calculated to be 803 gpm. This measurement is less than measurements performed in Spring and Fall 2013.

3.5.3.2. Point of Compliance

Surface water flow and the point of compliance water samples were collected upstream of a beaver dam prevention grate installed on the upstream side of the culvert at the Deschutes River (Station 364). The beaver dam prevention grate precluded access to the culvert; therefore, the flow measurement of 3,153 gpm is considered approximate because it could not be made within the culvert. Flow was not measured on the downstream side of the culvert because it was beneath the Deschutes River water surface.

3.6. Deviations from the FSP and Subdrain Monitoring Plan

Conditions encountered at the monitoring locations during the Spring 2014 monitoring required the following deviations from the FSP and the subdrain monitoring plan:

- Monitoring well MW-ES-08 was not sampled because construction in the area resulted in the well being located within Lake Park Drive SW, increasing safety concerns and necessitating a City traffic control permit. In email correspondence on February 28, 2014, EPA concurred with the request to exclude monitoring at this location during this monitoring event (EPA, 2014).
- Turbidity measurements exceeded 1,000 NTU in purge water from Piezometer PZ-704. Groundwater samples were collected after a minimum of three casing volumes had been purged from the piezometer and other field-measured water quality parameters had stabilized.
- Piezometer PZ-709 did not yield sufficient water to purge until field parameters stabilized, so the piezometer was purged dry and allowed to recharge for about an hour. Upon return, the piezometer yielded only enough water for sample collection. One set of field parameters were measured at this location.
- Monitoring well MW-93-02 was sampled with a peristaltic pump rather than Grundfos because a stick was present in the well casing, which did not allow for a larger pump.
- Monitoring wells MW-96-15 and MW-96-16 contain a QED Micropurge pump, which was removed before purging and sampling, and replaced after sampling.
- Monitoring well MW-96-17 contains a hand pump permanently affixed to the top of casing that was used to draw groundwater from screen. Flow was significantly higher and could not be consistently maintained due to the construction of the hand pump.
- Production well TW-16 was sampled at EPA's request. Monitoring of production well TW-17 also was requested by EPA; however, it could not be sampled because the surface completion has not yet been constructed.
- The sample from Seep 5 was collected directly from a surface water drainage channel without a screen.
- Stripper Tower 1 (ST-1) was not sampled because the tower was offline.

Deviations presented above were reported to the Project Manager and the Quality Assurance Technical Leader.

4.0 ANALYTICAL RESULTS

This section describes the results of the laboratory analysis completed for the Spring 2014 sampling event. Tabulated analytical results are provided in Appendix B. The data validation report and laboratory analytical reports are presented in Appendix C. Table 6 and Figures 5 and 6 summarize PCE and TCE concentrations in groundwater samples from monitoring wells, piezometers, stripper towers, production wells and seeps. Table 5 summarizes analytical results for the subdrain locations.

4.1. Groundwater Results

4.1.1. Monitoring Wells

Consistent with historical sampling results, the volatile organic compounds (VOCs) detected in groundwater samples collected during the Spring 2014 sampling event were primarily PCE and TCE. For this sampling event, PCE was detected in groundwater samples from 3 of 29 monitoring wells sampled. PCE exceeded the cleanup goal of 5 micrograms per liter (µg/L) at two locations. The maximum concentration of PCE

detected was 34 µg/L in the groundwater sample from monitoring well MW-ES-04. TCE was detected in groundwater samples from 13 of 29 monitoring wells sampled. TCE exceeded the cleanup goal of 5 µg/L at seven locations. The maximum concentration of TCE was 110 µg/L in the groundwater sample from monitoring well MW-ES-09. No additional compounds from the project list specified in the FSP were detected in samples from monitoring wells.

4.1.2. Wellfield Locations

TCE was detected in groundwater samples from two of the three production wells. TCE was detected in the groundwater sample from TW-4 at 0.43 µg/L, which is below the ROD cleanup goal of 5 µg/L. TCE was detected at 9.6 µg/L in the groundwater sample from TW-16. This production well was installed for the City in 2012, but has not been connected to the stripper towers or water supply (Smith, 2014). PCE and TCE were not detected in the effluent sample collected from Stripper Tower ST-2. No additional compounds from the project list specified in the FSP were detected at the wellfield locations.

4.1.3. Seeps

PCE and TCE were not detected in water samples from the four seep locations.

4.1.4. Piezometers

PCE was detected in groundwater samples from two piezometers: PZ-720 at a concentration of 0.40 µg/L and RPZ-732 at a concentration of 0.23 µg/L, below the ROD cleanup goal of 5 µg/L. TCE was detected more prevalently across the neighborhood in groundwater samples from 7 of the 15 piezometers at concentrations ranging from 0.65 µg/L at RPZ-731 to 37 µg/L at PZ-721. Concentrations of TCE exceeded the 5 µg/L ROD cleanup level in groundwater samples from three piezometers (PZ-720, PZ-721 and PZ-724).

Cis-1,2-DCE was detected in the groundwater samples from three piezometers: PZ-721 (0.28 µg/L), PZ-724 (0.92 µg/L) and PZ-728 (0.23 µg/L).

4.2. Subdrain and Treatment Lagoon

The subdrain and treatment lagoon analytical results were observed to be generally similar to past sampling (Table 5), as described below.

4.2.1. Subdrain and Tightline Outfall

PCE concentrations continue to be the highest in the groundwater sample from Station 357 (CO-6) within the subdrain at a concentration of 10 µg/L (Figure 7). The highest concentration of TCE was detected at Station 358 (CO-4) at 15 µg/L. Water flow into the treatment lagoon is measured at three stations (350, 356 and 362), Station 362 (M Street terminus catch basin outfall) was not sampled in Spring 2014 because there was no flowing water. It was last sampled in June 2008. PCE was not detected in either of the samples from Stations 350 or 356. TCE was detected in one of the samples from Station 350 at 1.2 µg/L.

4.2.2. Lagoon Effluent

PCE and TCE were detected at Station 361 (lagoon effluent) at concentrations of 0.30 µg/L and 0.95 µg/L, respectively.

4.2.3. Point of Compliance – Deschutes River

Station 364 was added to the monitoring network in 2003 to allow further evaluation of the remediation goals. This station is located where the treated water discharges to the Deschutes River, approximately 2,000 feet downstream from the treatment lagoon. For the Spring 2014 monitoring event, PCE was not detected above the reporting limit of 0.2 µg/L, however, TCE was detected at 0.50 µg/L in the sample from the same location. Overall, concentrations at Station 364 have been consistently below the ROD remediation goals of 0.8 µg/L for PCE and 2.7 µg/L for TCE. µg/L and the 2006 water quality criteria (PCE: 0.69 µg/L; TCE: 2.5 µg/L) outlined in the subdrain monitoring plan (GeoEngineers, 2013b).

5.0 CONCLUSIONS

The following conclusions are based on the results of the Spring 2014 semiannual groundwater monitoring results, subdrain and treatment lagoon results, and review of historical groundwater data.

5.1. Groundwater

Groundwater flow beneath the site generally appears to be toward the east to northeast as measured on April 14, 2014 (Figure 3). The groundwater elevations and flow direction are consistent with those documented during spring monitoring events from 2004 through 2013.

5.1.1. Monitoring Wells

Concentrations of PCE and TCE detected in groundwater samples from monitoring wells were generally consistent with past monitoring events. PCE was detected at concentrations exceeding the 5 µg/L ROD cleanup goal in groundwater samples from MW-ES-04 (34 µg/L) and MW-ES-06 at (13 µg/L). PCE concentrations did not exceed the cleanup goal in other groundwater samples collected from monitoring wells. TCE was detected at concentrations exceeding the 5 µg/L ROD cleanup goal in groundwater samples from seven locations. The highest TCE concentrations were observed in groundwater samples collected east of Capitol Boulevard at the top of the bluff (MW-ES-02) at 39 µg/L and in the Palermo neighborhood (MW-ES-09 and MW-ES-10 at 110 µg/L and 35 µg/L, respectively).

5.1.2. Wellfield Locations

PCE was not detected in groundwater samples from production wells TW-4, TW-8, and TW-16. TCE was detected in groundwater samples from production wells TW-4 and TW-16 at concentrations of 0.43 µg/L and 9.6 µg/L, respectively. TCE was not detected in the groundwater sample from production well TW-8. The concentration of TCE in the groundwater sample from TW-16 exceeded the 5 µg/L ROD remediation goal.

TW-16 was installed in 2012 and had not been connected to the air stripper treatment system as of the Spring 2014 monitoring. PCE and TCE were not detected in the post-treatment water sample collected at ST-1.

5.1.3. Seeps

PCE and TCE were not detected in seep samples collected during this effort.

5.1.4. Piezometers

Water level elevation ranged from 113.79 feet at PZ-715 at the base of the Palermo bluff to 99.55 feet at monitoring well MW-110 in the northeastern part of the site. Of the 15 piezometers sampled, only piezometer PZ-722 exhibited artesian conditions with a water level nearing 1 foot above ground surface.

Concentrations of TCE greater than the ROD remediation goal were observed in groundwater samples collected from piezometers near the intersection of Rainier Avenue and N Street. PCE and TCE were both detected in piezometers in the Palermo neighborhood at PZ-720 at an estimated concentration of 0.4 µg/L and 5.5 µg/L, respectively. At the remaining six locations, TCE was detected between 1.8 µg/L at PZ-719 and 37 µg/L at PZ-721.

5.2. Subdrain and Treatment Lagoon

Sediment is accumulating in the southern portion of the subdrain at Cleanout CO-8, at a thickness that exceeds sediment accumulation criteria established in the O&M Manual (EPA, 2002).

TCE was detected in the water sample collected from the point of compliance near the Deschutes River (Station 364) at 0.5 µg/L, less than the ROD cleanup goal of 2.7 µg/L. PCE was not detected in the water sample collected from the point of compliance.

Because PCE and TCE were consistently detected in shallow groundwater at the base of the bluff, a subdrain system was installed to facilitate reduction in water levels to reduce potential human health risks associated with potential exposure to these compounds in indoor air. Water level reduction is monitored using the three southern-most piezometers along Rainier Avenue. Section 3.2 of the O&M Manual (EPA, 2002) describes reducing the water level by 1.5 feet below the crawl spaces of the seven southern-most homes along Rainier Avenue. The performance criteria for this area was not met for the five southern-most homes along Rainier Avenue (Table 3).

6.0 LIMITATIONS

We have prepared this groundwater monitoring report for use by WSDOT as part of their evaluation of environmental conditions at the site. WSDOT may distribute copies of this report to their authorized agents and regulatory agencies as may be required for the Project.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. The conclusions and opinions presented in this report are based on our professional knowledge, judgment and experience. No warranty or other conditions, express or implied, should be understood. This report was prepared based, in part, on previous investigations and data collected by others. GeoEngineers is not responsible for any data that were inaccurately reported by others and reproduced here.

Please refer to Appendix D titled “Report Limitations and Guidelines for Use” for important additional information pertaining to the use of this report.

7.0 REFERENCES

GeoEngineers. 2013a. Field Sampling and Analysis Plan – Semiannual Groundwater Monitoring Palermo Wellfield Superfund Site. February 15, 2013.

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EPA. 2014. Bernie Zavala and Claire Hong (EPA) in email communication Norm Payton (WSDOT), February 28, 2014.

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Table 1

Well Construction Summary

Spring 2014 Groundwater Monitoring Report
Palermo Wellfield Superfund Site
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Well or Piezometer	Well Location [1,2]		Measuring Point (TOC) Elevation [3]	Screen Interval Depth (feet bgs)		Geologic Unit of Screen Interval	Approximate Screen Interval Elevation	
	Northing	Easting		Top	Bottom		Top	Bottom
Bluff Area								
MW-UI	616967.53	1038149.35	178.82	17.7	27.7	unknown	161.1	151.1
WDOT-MW-1	617640.30	1038503.60	166.94	30.0	39.5	SP--dense to medium dense, olive green, fine sand	136.9	127.4
WDOT-MW-2	617572.60	1038517.40	165.45	30.0	39.5	SP--very dense, olive green to orange, fine to medium sand	135.5	126.0
MW-100	616814.53	1037366.22	177.70	20.0	30.0	SP-medium dense, brown, fine to coarse sand	157.7	147.7
MW-101A	617236.76	1038149.35	176.19	65.0	75.0	SP-loose, gray, fine to medium sand	111.2	101.2
MW-101B	617197.00	1038150.00	176.25	25.0	35.0	SP-loose to medium dense, light brown, fine to medium sand	151.3	141.3
MW-102	617465.24	1038134.22	166.94	16.0	26.0	SP-loose to medium dense, gray, fine to medium sand	150.9	140.9
MW-103	617768.90	1038225.10	163.74	11.0	21.0	SP-loose to medium dense, gray, fine to medium sand	152.7	142.7
MW-104A	617861.70	1039673.00	170.64	119.0	129.0	SP-medium dense to dense, brown, fine sand	51.6	41.6
MW-104B	617866.01	1039675.67	170.51	52.0	62.0	SP-medium dense, brown, fine grained sand	118.5	108.5
MW-109	617312.79	1038552.35	168.89	64.5	74.5	SP-medium dense to dense, brown, fine to coarse sand	104.4	94.4
MW-111	617663.43	1038824.43	165.41	30.0	40.0	SP-medium dense, brown, fine to medium sand	135.4	125.4
MW-ES-01[4]	617877.2	1039204.0	173.50	90.0	100.0	SP-outwash sands with silt	83.5	73.5
MW-ES-02	617664.68	1039666.61	174.65	95.0	105.0	SM-silty sand	79.7	69.7
MW-ES-03	617546.79	1039463.97	175.07	113.0	123.0	SP to SP-SM-sand with silt	62.1	52.1
MW-ES-04	617548.74	1039477.60	175.11	50.0	60.0	SM/ML/SM-silty sand, sandy silt, silty sand	125.1	115.1
MW-ES-05	617517.36	1039178.92	175.05	86.0	96.0	SP-SM-fine sand with silt	89.1	79.1
MW-ES-06	617517.59	1039200.03	173.30	46.0	56.0	SP-SM-sand +/- silt	127.3	117.3
MW-ES-07	617139.20	1037976.58	177.89	25.0	35.0	SP-sand SP-sand with gravel	152.9	142.9
MW-ES-08	617163.60	1037049.22	177.17	25.0	35.0	SP-SM-sand +/- silt	152.2	142.2
MW-ES-11	617586.81	1038492.29	166.28	80.0	90.0	SW, well graded sand	86.3	76.3
MW-96-15	617157.91	1038938.73	170.39	69.0	79.0	medium fine sand	101.4	91.4
MW-96-16	616836.42	1039704.25	181.00	50.5	60.5	fine medium sand	130.5	120.5
MW-96-17	616767.70	1039839.20	179.66	45.5	55.5	fine brown sand	134.2	124.2
Deschutes Valley Area								
MW-4A	617599.92	1040464.0	109.86	100	110	silty sand and gravel	9.9	-0.1
MW-4B	617599.9	1040464.0	109.85	80	90	silty sand	29.9	19.9
MW-ES-09	617754.43	1040021.9	108.33	20	30	SP-poorly graded sand with silty sand interbed	88.3	78.3
MW-ES-10	617761.34	1040013.1	108.25	82	92	unknown (no description)	26.3	16.3
MW-107	617052.39	1041164.92	114.66	25.0	35.0	ML-very hard, moist, gray silt SP-loose to medium dense, brown, medium to coarse sand	89.7	79.7
MW-110	618032.42	1041013.21	101.93	30.0	40.0	SP-loose to medium dense, gray, fine to medium sand	71.9	61.9
MW-93-02	617159.33	1040344.31	112.76	6.0	11.0	fine silty blue sand brown clay	106.8	101.8
PZ-704	618088.1	1039827.2	110.61	5	7.5	fine to coarse sand with cobbles and boulders	105.6	103.1
PZ-709	617880	1039819.2	114.27	5	7.5	fine to coarse sand with cobbles and boulders	109.3	106.8
PZ-715	617683.4	1039815.4	117.79	5	7.5	fine to coarse sand with cobbles and boulders	112.8	110.3
PZ-719	618200.7	1039999.7	107.13	7	10	fine to medium sand	100.1	97.1
PZ-720	618026.5	1039992.8	107.95	7	10	fine to medium sand	101.0	98.0
PZ-721	617873.9	1039991.1	108.32	7	10	fine to medium sand	101.3	98.3
PZ-722	617664.1	1039983.3	108.82	7	10	fine to medium sand	101.8	98.8
PZ-723	618244	1040200.4	106.45	7	10	fine to medium sand	99.5	96.5
PZ-724	617976.1	1040198.2	106.56	7	10	fine to medium sand	99.6	96.6
PZ-725	617741.3	1040220.1	108.31	7	10	fine to medium sand	101.3	98.3
PZ-726	618186	1040452.6	105.39	7	10	fine to medium sand	98.4	95.4
PZ-728	617851.61	1040464.0	105.33	7	10	fine to medium sand	98.3	95.3
RPZ-730	618243.76	1040685.0	103.90	4.13	9.13	log not on file	99.8	94.8
RPZ-731	617996.36	1040745.1	105.09	4.75	9.75	log not on file	100.3	95.3
RPZ-732	617731.13	1040684.1	105.69	4.63	9.63	log not on file	101.1	96.1
Palermo Wellfield								
TW-4	617494.23	1040658.29	105.49	60	90	large gravel and sand	45.5	15.5
TW-5	617552.37	1040588.15	107.97	82	115	sand and gravel blue clay at 114 feet	26.0	-7.0
TW-8	617396.92	1040445.80	106.48	70	90	medium to coarse sand and gravel	36.5	16.5

Notes:

[1] Existing well locations and TOC elevations were obtained from previous explorations (Parametrix 2012, URS 1999 and personal communications with EPA 2013).

[2] Horizontal Datum: NAD83 WA State Plane North.

[3] Elevation in NAVD88 = North American Vertical Datum of 1988.

[4] Monitoring well MW-ES-01 no longer exists (abandoned).

bgs = below ground surface

TOC = Top of casing

Table 2

Water Level Elevations

Spring 2014 Groundwater Monitoring Report
Palermo Wellfield Superfund Site
Tumwater, Washington

Location	Top-of-Casing/Measuring Point Elevation (feet NGVD)	Depth-to-Water (feet)	Water Level Elevation (feet NGVD)
Monitoring Wells			
MW-4A	109.86	5.37	104.49
MW-4B	109.85	5.26	104.59
MW-93-02	112.76	4.04	108.72
MW-96-15[1]	165.608	25.02	140.588
MW-96-16[1]	177.525	47.11	130.415
MW-96-17[1,2]	176.255	48.55	127.705
MW-100	177.70	16.08	161.62
MW-101A	176.25	19.08	157.17
MW-101B	176.19	18.77	157.42
MW-102	166.94	9.53	157.41
MW-103	163.74	5.86	157.88
MW-104A	170.64	51.99	118.65
MW-104B	170.51	49.39	121.12
MW-107	114.66	7.73	106.93
MW-109	168.89	18.93	149.96
MW-110	101.93	2.38	99.55
MW-111	165.41	25.29	140.12
MW-ES-02	174.65	52.65	122.00
MW-ES-03	175.07	47.79	127.28
MW-ES-04	175.11	48.17	126.94
MW-ES-05	175.05	42.90	132.15
MW-ES-06	173.3	43.38	129.92
MW-ES-07	177.89	19.43	158.46
MW-ES-09	108.33	-0.09	108.42
MW-ES-10	108.25	-2.09	110.34
MW-ES-11	166.28	14.76	151.52
MW-UI	178.82	18.63	160.19
WDOT-MW-1	166.94	18.54	148.40
WDOT-MW-2	165.45	15.70	149.75
Piezometers			
PZ-704	110.61	4.44	106.17
PZ-709	114.27	2.75	111.52
PZ-715	117.79	4.00	113.79
PZ-719	107.13	2.06	105.07
PZ-720	107.95	2.87	105.08
PZ-721	108.32	2.65	105.67
PZ-722	108.82	-0.99	109.81
PZ-723	106.45	2.33	104.12
PZ-724	106.56	9.13	97.43
PZ-725	108.31	2.42	105.89
PZ-726	105.39	2.77	102.62
PZ-728	105.33	2.15	103.18
RPZ-730	103.90	3.03	100.87
RPZ-731	105.09	4.06	101.03
RPZ-732	105.69	4.38	101.31
Production Wells			
TW-4	105.49	6.50	98.99
TW-8	106.48	4.30	102.18
Subdrain Clean Outs			
CO-1 (359)	108.39	6.01	102.38
CO-2	108.04	5.45	102.59
CO-3	107.96	5.17	102.79
CO-4 (358)	108.73	5.88	102.85
CO-5	109.32	6.30	103.02
CO-6 (357)	109.78	6.20	103.58
CO-7	110.73	6.72	104.01
CO-8	110.96	6.75	104.21

Notes:

[1] City datum corrected to NGVD (formerly NAVD 88) measuring point also corrected.

[2] Water level measured through top of hand pump.

NGVD = National Geodetic Vertical Datum 1929

Groundwater depth-to-water measurements were collected from monitoring wells on April 14, 2014.

Subdrain depth-to-water measurements were collected on April 29, 2014.

Table 3

Sediment Accumulation in Catch Basins and Cleanouts in Subdrain System

Spring 2014 Groundwater Monitoring Report
Palermo Wellfield Superfund Site
Tumwater, Washington

Location	Depth to Water (feet)	Groundwater Elevation (feet)	Original Depth (February 2001) (feet)	Total Depth (April 2014) (feet)	Net Change (feet)	Catch Basin and Subdrain Cleanout Observations
CB-1	5.05	N/A	7.78	7.86	-0.08	Gravel flowing in from west invert and being deposited in sump. Inverts partially submerged.
CB-2	6.55	N/A	8.78	8.80	-0.02	Debris in sump (sand, rocks, asphalt), fast flow, soft sump bottom. South and east inverts partially submerged.
CB-3	8.93	N/A	8.81	9.13	-0.32	Free of debris, fast flow, soft sump bottom. Both inverts partially submerged.
CO-1 (359)	6.01	102.52	7.82	7.74	0.08	Free of debris, fast flow, soft sump bottom. South and east inverts fully submerged.
CO-2	5.45	102.62	7.10	7.19	-0.09	Free of debris, moderate flow, soft sump bottom. All inverts fully submerged.
CO-3	5.17	102.78	6.84	6.78	0.06	Sediment in sump, slow flow, soft sump bottom. All inverts fully submerged.
CO-4 (358)	5.88	102.83	7.84	7.40	0.44	Free of debris, moderate flow. South and east inverts are completely submerged. North invert is mostly submerged.
CO-5	6.30	103.00	7.84	7.79	0.05	Tree roots present in bottom of sump, moderate flow. North and south inverts partially submerged. East invert fully submerged.
CO-6 (357)	6.20	6.2	7.7	7.46	0.24	Free of debris, slow flow, soft sump bottom. Water sample has faint hydrogen sulfide odor. Worms observed in water. All inverts submerged.
CO-7	6.72	104.00	7.89	7.81	0.08	South pipe invert is partially submerged, some sediment in pipe. East pipe invert partially submerged. North pipe invert partially submerged.
CO-8	6.75	6.75	8.1	7.47	0.63	Free of debris, slow flow. East pipe invert finger drain is completely submerged. North pipe invert is partially submerged.

Notes:

Red shading indicates exceedance of 0.5 foot accumulated sediment (Section 4.2.1 Trunk Drain, O&M Manual, URS 2002).

N/A = Not applicable

NGVD = National Geodetic Vertical Datum 1929

Table 4

Subdrain Performance

Spring 2014 Groundwater Monitoring Report
Palermo Wellfield Superfund Site
Tumwater, Washington

Upgradient Station	Upgradient Ground Surface Elevation [1] (feet)	Upgradient Groundwater Elevation (feet)	Compliance Station	Compliance Ground Surface Elevation [1] (feet)	Compliance Groundwater Elevation (feet)	Depth to Water from Ground Surface (feet) [2]	3-Foot Elevation Reduction Met
PZ-704	108.43	106.17	PZ-720	108.22	105.08	3.14	Yes
PZ-709	112.01	111.52	PZ-721	108.57	105.67	2.90	No
PZ-715	115.51	113.79	PZ-722	109.21	109.81	-0.6	No

Notes:

[1] Elevations in NGVD 29. Surveyed by White Shield for URS January 5, 2000.

[2] Compliance ground surface minus compliance groundwater elevation.

Table 5

Spring 2014 Discharge Volume and Analytical Results - Subdrain and Lagoon

Spring 2014 Groundwater Monitoring Report

Palermo Wellfield Superfund Site

Tumwater, Washington

Location	Station Description	Volume (GPM) Units	Tetrachloroethene (µg/L)	Trichloroethene (µg/L)
Flow in Sub-Drain System				
357	Cleanout CO-6	23	**10**	**8.4**
358	Cleanout CO-4	59	**7.0**	**15**
359	Cleanout CO-1	179	**4.6**	**12**
360	Tightline Pipe Outfall	201	**4.0**	**11**
Treatment Lagoon Inflows (Non-Sub-Drain)				
350	M Street Storm Drain Outfall	201	0.20 U	**1.2**
356	Watercourse Upstream of Lagoon	NC	0.20 U	0.20 U
362	M Street Terminus Catch Basin Outfall (rarely flows)	NF	NS	NS
Treatment Lagoon Effluent				
361	Lagoon Effluent	803	**0.30**	**0.95**
Deschutes River Point of Compliance				
364	Deschutes River Outfall	3,153	0.20 U	**0.50**
	Deschutes River Discharge Remediation Goal		**0.8**	**2.7**

Notes:

GPM = gallons per minute

µg/L = microgram per liter

NG = no remediation goal

NS = not sampled

NF = no flow; not calculated

NC = not calculated because flow was too wide to access safely.

U = parameter not detected above the reporting limit

Bold font type indicates analyte was detected.

Samples were also analyzed for 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride but were not detected.

Samples were collected on April 29, 2014.

Table 6

TCE and PCE Detected in Groundwater and Seep Samples

Spring 2014 Groundwater Monitoring Report
Palermo Wellfield Superfund Site
Tumwater, Washington

Analyte		PCE	TCE
ROD Remediation Goal		5	5
Location ID	Date	(µg/L)	(µg/L)
MW-100	5/12/2004	0.5 U	0.5 U
MW-100	9/21/2004	1 U	0.5 U
MW-100	4/26/2005	0.5 U	0.5 U
MW-100	10/5/2005	0.5 U	0.5 U
MW-100	3/16/2006	**1.5**	1 U
MW-100	10/30/2006	1 U	1 U
MW-100	6/6/2007	1 U	1 U
MW-100	11/12/2007	1 U	1 U
MW-100	5/19/2008	0.5 U	0.5 U
MW-100	10/27/2008	1 U	1 U
MW-100	4/27/2009	0.5 U	0.5 U
MW-100	11/9/2009	0.5 U	0.5 U
MW-100	5/19/2010	0.5 U	0.5 U
MW-100	10/19/2010	0.5 U	0.5 U
MW-100	5/23/2011	0.5 U	0.5 U
MW-100	11/8/2011	0.5 U	0.5 U
MW-100	5/29/2012	0.5 U	0.5 U
MW-100	3/5/2013	1 U	1 U
MW-100	9/19/2013	0.5 U	0.5 U
MW-100	4/15/2014	0.20 U	0.20 U
MW-101A	3/17/2006	1 U	1 U
MW-101A	5/29/2012	0.5 U	0.5 U
MW-101A	3/6/2013	1 U	1 U
MW-101A	9/17/2013	0.5 U	0.5 U
MW-101A	4/15/2014	0.20 U	0.20 U
MW-101B	3/17/2006	**0.1 J**	**14**
MW-101B	10/31/2006	1 U	**6.2**
MW-101B	6/6/2007	1 U	**5.5**
MW-101B	11/13/2007	1 U	**5.7**
MW-101B	5/20/2008	0.5 U	**6.2**
MW-101B	10/28/2008	1 U	**3.9**
MW-101B	4/28/2009	0.5 U	**17**
MW-101B	11/10/2009	0.5 U	**2.2**
MW-101B (dup)	5/19/2010	0.5 U	**3.5**
MW-101B	5/19/2010	0.5 U	**3.6**
MW-101B (dup)	10/21/2010	0.5 U	**3.3**
MW-101B	10/21/2010	0.5 U	**3.3**
MW-101B	5/24/2011	0.5 U	**2.2**
MW-101B	11/8/2011	0.5 U	**3.7**
MW-101B	5/29/2012	0.5 U	**2.7**
MW-101B	3/5/2013	1 U	**3**
MW-101B	9/17/2013	0.5 U	**3.3**
MW-101B	4/15/2014	0.20 U	**2.9**
MW-102 (dup)	6/4/2012	0.5 U	0.5 U
MW-102	6/4/2012	0.5 U	0.5 U
MW-102	3/5/2013	1 U	1 U
MW-102	9/17/2013	0.5 U	0.5 U
MW-102	4/17/2014	0.20 U	0.20 U
MW-102 (dup)	4/17/2014	0.20 U	0.20 U
MW-103	6/4/2012	0.5 U	0.5 U
MW-103	3/6/2013	1 U	1 U
MW-103	9/18/2013	0.5 U	0.5 U
MW-103	4/16/2014	0.20 U	0.20 U
MW-104A	3/17/2006	1 U	**6.6**
MW-104A	10/31/2006	**1.7**	1 U
MW-104A	6/4/2012	0.5 U	**5.3**
MW-104A	3/7/2013	1 U	**8**
MW-104A	9/27/2013	0.5 U	**4.6**
MW-104A	4/18/2014	0.20 U	**3.9**
MW-104B	5/11/2004	**1.9**	**0.26 J**
MW-104B	9/21/2004	**1.6**	0.5 U
MW-104B	4/26/2005	**0.97**	0.5 U
MW-104B	10/6/2005	**1.4**	0.5 U
MW-104B	10/31/2006	1 U	**11**
MW-104B	6/7/2007	**1.9**	1 U
MW-104B	11/13/2007	**2.4**	1 U
MW-104B	5/20/2008	**1.3**	0.5 U
MW-104B	10/28/2008	**1.6**	1 U
MW-104B	4/29/2009	5 U	5 U
MW-104B	11/11/2009	**0.87**	0.5 U
MW-104B	5/20/2010	**1.4**	**0.057 J**
MW-104B	10/22/2010	**1.8**	0.5 U
MW-104B	5/26/2011	**0.95**	0.5 U
MW-104B	11/9/2011	**1.6**	0.5 U
MW-104B	6/4/2012	**1.3**	0.5 U
MW-104B	3/11/2013	**1.4**	1 U
MW-104B	9/27/2013	**1.5**	0.5 U
MW-104B	4/18/2014	**0.99**	0.20 U

Analyte		PCE	TCE
ROD Remediation Goal		5	5
Location ID	Date	(µg/L)	(µg/L)
MW-107	6/7/2012	0.5 U	0.5 U
MW-107	3/6/2013	1 U	1 U
MW-107	9/20/2013	0.5 U	0.5 U
MW-107	4/18/2014	0.20 U	0.20 U
MW-109	5/12/2004	0.5 U	**31**
MW-109	9/21/2004	1 U	**32**
MW-109	4/26/2005	0.5 U	**15**
MW-109	10/5/2005	0.5 U	**22**
MW-109	3/20/2006	1 U	**27**
MW-109 (dup)	11/1/2006	1 U	**25**
MW-109	11/1/2006	1 U	**25**
MW-109	6/7/2007	1 U	**22**
MW-109	11/13/2007	1 U	**22**
MW-109 (dup)	5/20/2008	0.5 U	**22 J**
MW-109	5/20/2008	0.5 U	**10**
MW-109	10/28/2008	1 U	**20**
MW-109	4/28/2009	0.5 U	**17**
MW-109	11/10/2009	0.5 U	**8.3**
MW-109	5/19/2010	0.5 U	**16**
MW-109	10/21/2010	0.5 U	**17**
MW-109	5/24/2011	0.5 U	**13**
MW-109	11/8/2011	0.5 U	**19**
MW-109	5/30/2012	0.5 U	**13**
MW-109	3/5/2013	1 U	**15**
MW-109	9/18/2013	0.5 U	**16**
MW-109	4/16/2014	0.20 U	**15**
MW-110	5/12/2004	0.5 U	0.5 U
MW-110	9/21/2004	1 U	0.5 U
MW-110	4/26/2005	0.5 U	0.5 U
MW-110	10/5/2005	0.5 U	0.5 U
MW-110	3/20/2006	1 U	1 U
MW-110	10/31/2006	1 U	1 U
MW-110	6/6/2007	1 U	1 U
MW-110	11/12/2007	1 U	1 U
MW-110	5/20/2008	0.5 U	0.5 U
MW-110	10/28/2008	1 U	1 U
MW-110	4/28/2009	0.5 U	0.5 U
MW-110	11/10/2009	0.5 U	0.5 U
MW-110	5/19/2010	0.5 U	0.5 U
MW-110	10/20/2010	0.5 U	0.5 U
MW-110	5/24/2011	0.5 U	0.5 U
MW-110	11/8/2011	0.5 U	0.5 U
MW-110 (dup)	6/7/2012	0.5 U	0.5 U
MW-110	6/7/2012	0.5 U	0.5 U
MW-110 (dup)	3/6/2013	1 U	1 U
MW-110	3/6/2013	1 U	1 U
MW-110	9/20/2013	0.5 U	0.5 U
MW-110	4/18/2014	0.20 U	0.20 U
MW-111	5/12/2004	0.5 U	**22**
MW-111	9/21/2004	1 U	**17**
MW-111	4/26/2005	0.5 U	0.5 U
MW-111	10/5/2005	0.5 U	**12**
MW-111	3/17/2006	1 U	**20**
MW-111	11/1/2006	1 U	**16**
MW-111	6/6/2007	1 U	**18**
MW-111 (dup)	11/13/2007	1 U	**18**
MW-111	11/13/2007	1 U	**16**
MW-111	5/20/2008	0.5 U	**14**
MW-111 (dup)	10/28/2008	1 U	**16**
MW-111	10/28/2008	1 U	**17**
MW-111	4/28/2009	0.5 U	**11**
MW-111	11/10/2009	0.5 U	**5.8**
MW-111	5/19/2010	0.5 U	**12**
MW-111	10/21/2010	0.5 U	**11**
MW-111	5/24/2011	0.5 U	**12**
MW-111 (dup)	5/24/2011	0.5 U	**11**
MW-111	11/8/2011	0.5 U	**13**
MW-111	5/30/2012	0.5 U	**12**
MW-111	3/7/2013	1 U	**9.1**
MW-111	9/19/2013	0.5 U	**9.2**
MW-111	4/16/2014	0.20 U	**8.4**
MW-4A	3/20/2006	1 U	1 U
MW-4A	6/5/2012	0.5 U	0.5 U
MW-4A	3/12/2013	1 U	1 U
MW-4A	9/26/2013	0.5 U	0.5 U
MW-4A	4/22/2014	0.20 U	0.20 U
MW-4A (dup)	4/22/2014	0.20 U	0.20 U

Analyte		PCE	TCE
ROD Remediation Goal		5	5
Location ID	Date	(µg/L)	(µg/L)
MW-4B	3/20/2006	1 U	1 U
MW-4B	6/5/2012	0.5 U	0.5 U
MW-4B	3/12/2013	1 U	1 U
MW-4B	9/26/2013	0.5 U	0.5 U
MW-4B (dup)	9/26/2013	0.5 U	0.5 U
MW-4B	4/22/2014	0.20 U	0.20 U
MW-93-02	6/5/2012	0.5 U	0.5 U
MW-93-02	3/12/2013	1 U	1 U
MW-93-02	9/20/2013	0.5 U	0.5 U
MW-93-02	4/17/2014	0.20 U	0.20 U
MW-96-15	5/30/2012	0.5 U	0.5 U
MW-96-15	3/7/2013	1 U	1 U
MW-96-15	9/17/2013	0.5 U	0.5 U
MW-96-15	4/17/2014	0.20 U	0.20 U
MW-96-16	6/5/2012	0.5 U	0.5 U
MW-96-16	3/6/2013	1 U	1 U
MW-96-16	9/18/2013	0.5 U	0.5 U
MW-96-16	4/16/2014	0.20 U	0.20 U
MW-96-17	6/5/2012	0.5 U	0.5 U
MW-96-17	3/6/2013	1 U	1 U
MW-96-17	9/18/2013	0.5 U	0.5 U
MW-96-17	4/15/2014	0.20 U	0.20 U
MW-ES-02	3/22/2006	1 U	**56**
MW-ES-02 (dup)	11/1/2006	1 U	**69**
MW-ES-02	11/1/2006	1 U	**68**
MW-ES-02	6/7/2007	1 U	**66**
MW-ES-02 (dup)	11/14/2007	1 U	**62**
MW-ES-02	11/14/2007	1 U	**66**
MW-ES-02	5/20/2008	0.5 U	**47**
MW-ES-02	10/29/2008	1 U	**50**
MW-ES-02	4/29/2009	5 U	**43**
MW-ES-02	11/11/2009	0.5 U	**29**
MW-ES-02	5/20/2010	0.5 U	**53**
MW-ES-02	10/22/2010	0.5 U	**58**
MW-ES-02	5/26/2011	0.5 U	**46**
MW-ES-02	11/8/2011	0.5 U	**51**
MW-ES-02 (dup)	11/8/2011	0.5 U	**50**
MW-ES-02 (dup)	5/31/2012	0.5 U	**50**
MW-ES-02	5/31/2012	0.5 U	**47**
MW-ES-02	3/7/2013	1 U	**38**
MW-ES-02	9/20/2013	0.5 U	**39**
MW-ES-02	4/21/2014	0.20 U	**39**
MW-ES-03 (dup)	5/11/2004	0.5 U	**37**
MW-ES-03	5/11/2004	0.5 U	**37**
MW-ES-03 (dup)	9/22/2004	1 U	**40**
MW-ES-03	9/22/2004	1 U	**42**
MW-ES-03 (dup)	4/27/2005	0.5 U	**18**
MW-ES-03	4/27/2005	0.5 U	**22**
MW-ES-03 (dup)	10/6/2005	**0.13 J**	**22**
MW-ES-03	10/6/2005	**1.4**	0.5 U
MW-ES-03	3/20/2006	1 U	**27**
MW-ES-03	11/1/2006	1 U	**22**
MW-ES-03	6/7/2007	1 U	**26**
MW-ES-03	11/14/2007	1 U	**26**
MW-ES-03	5/21/2008	0.5 U	**24**
MW-ES-03	10/29/2008	1 U	**25**
MW-ES-03	4/29/2009	5 U	**16**
MW-ES-03	11/12/2009	0.5 U	**12**
MW-ES-03	5/20/2010	0.5 U	**21**
MW-ES-03	10/21/2010	0.5 U	**25**
MW-ES-03	5/25/2011	0.5 U	**21**
MW-ES-03	11/9/2011	0.5 U	**27**
MW-ES-03	6/4/2012	0.5 U	**21**
MW-ES-03 (dup)	3/7/2013	1 U	**20**
MW-ES-03	3/7/2013	1 U	**17**
MW-ES-03	9/19/2013	0.5 U	**18**
MW-ES-03	4/17/2014	0.20 U	**16**
MW-ES-04	5/11/2004	**58**	**0.52**
MW-ES-04	9/22/2004	**52**	**0.44 J**
MW-ES-04	4/27/2005	**51**	**0.35 J**
MW-ES-04	10/6/2005	**38**	**0.24 J**
MW-ES-04	3/20/2006	**48**	**0.8 J**
MW-ES-04	11/1/2006	**43**	**1.2**
MW-ES-04	6/7/2007	**35**	**1.2**
MW-ES-04	11/14/2007	**38**	**1.7**
MW-ES-04	5/21/2008	**49**	**1.8**
MW-ES-04	10/29/2008	**25**	**1.1**
MW-ES-04	4/29/2009	**21**	**0.56 J**
MW-ES-04	11/12/2009	**16**	**0.38 J**
MW-ES-04	5/20/2010	**42**	**0.64 J**
MW-ES-04	10/21/2010	**34**	**0.6**
MW-ES-04	5/25/2011	**23**	**0.52**
MW-ES-04	11/9/2011	**26**	**0.75**
MW-ES-04	6/4/2012	**31**	**0.82**
MW-ES-04	3/8/2013	**44**	**0.56 J**
MW-ES-04	9/19/2013	**32**	0.5 U
MW-ES-04	4/17/2014	**34**	**0.31**

Analyte		PCE	TCE
ROD Remediation Goal		5	5
Location ID	Date	(µg/L)	(µg/L)
MW-ES-05	5/11/2004	0.5 U	**46 J**
MW-ES-05	9/22/2004	1 U	**44**
MW-ES-05	4/26/2005	0.5 U	**52**
MW-ES-05	10/5/2005	0.5 U	**37**
MW-ES-05	3/21/2006	1 U	**42**
MW-ES-05	11/1/2006	1 U	**58**
MW-ES-05	6/7/2007	1 U	**54**
MW-ES-05	11/13/2007	1 U	**53**
MW-ES-05 (dup)	5/21/2008	0.5 U	**56 J**
MW-ES-05	5/21/2008	**0.21 J**	**58**
MW-ES-05	10/29/2008	1 U	**41**
MW-ES-05	4/29/2009	5 U	**27**
MW-ES-05	11/11/2009	0.5 U	**16**
MW-ES-05	5/20/2010	0.5 U	**33**
MW-ES-05	10/22/2010	0.5 U	**36**
MW-ES-05	5/25/2011	0.5 U	**30**
MW-ES-05	11/9/2011	0.5 U	**35**
MW-ES-05	5/30/2012	0.5 U	**32**
MW-ES-05	3/8/2013	1 U	**27**
MW-ES-05	9/20/2013	0.5 U	**27**
MW-ES-05 (dup)	9/20/2013	0.5 U	**27**
MW-ES-05 (dup)	4/21/2014	0.20 U	**25**
MW-ES-05	4/21/2014	0.20 U	**25**
MW-ES-06	5/11/2004	**31**	**11**
MW-ES-06	9/22/2004	**26**	**11**
MW-ES-06	4/26/2005	**15**	**4.6**
MW-ES-06	10/5/2005	**19**	**11**
MW-ES-06	3/21/2006	**25**	**16**
MW-ES-06	11/1/2006	**34**	**12**
MW-ES-06	6/7/2007	**49**	**6.1**
MW-ES-06	11/13/2007	**40**	**6.9**
MW-ES-06	5/21/2008	**16**	**4.7**
MW-ES-06	10/29/2008	**18**	**5.7**
MW-ES-06 (dup)	4/29/2009	**18**	**3.5 J**
MW-ES-06	4/29/2009	**16**	5 U
MW-ES-06	11/11/2009	**11**	**2.3**
MW-ES-06	5/20/2010	**18**	**3.1**
MW-ES-06	10/22/2010	**14**	**2.7**
MW-ES-06	5/25/2011	**26**	**1.2**
MW-ES-06	11/9/2011	**36**	**1.6**
MW-ES-06	5/30/2012	**34**	**1.2**
MW-ES-06	3/8/2013	**23**	**0.97 J**
MW-ES-06	9/20/2013	**27**	**0.76**
MW-ES-06	4/21/2014	**13**	**1.1**
MW-ES-07	3/20/2006	**0.1 J**	**7.8**
MW-ES-07	10/31/2006	1 U	**11**
MW-ES-07	6/6/2007	1 U	**10**
MW-ES-07	11/13/2007	1 U	**11**
MW-ES-07	5/20/2008	0.5 U	**8.6**
MW-ES-07	10/28/2008	1 U	**6.9**
MW-ES-07	4/28/2009	0.5 U	**4.7**
MW-ES-07	11/10/2009	0.5 U	**3.6**
MW-ES-07	5/19/2010	0.5 U	**4.8**
MW-ES-07	10/21/2010	0.5 U	**5.1**
MW-ES-07	5/24/2011	0.5 U	**4.5**
MW-ES-07	11/8/2011	0.5 U	**9.7**
MW-ES-07	5/29/2012	0.5 U	**4.4**
MW-ES-07	3/5/2013	1 U	**3.9**
MW-ES-07	9/17/2013	0.5 U	**7**
MW-ES-07	4/15/2014	0.20 U	**4.3**
MW-ES-08	5/29/2012	0.5 U	0.5 U
MW-ES-08	3/5/2013	1 U	1 U
MW-ES-08	9/19/2013	0.5 U	0.5 U
MW-ES-09	5/11/2004	0.5 U	**220**
MW-ES-09	9/22/2004	1 U	**200**
MW-ES-09	4/27/2005	0.5 U	**300**
MW-ES-09	10/6/2005	0.5 U	**120**
MW-ES-09	3/22/2006	1 U	**176**
MW-ES-09	11/2/2006	1 U	**170**
MW-ES-09	6/8/2007	1 U	**169**
MW-ES-09	11/14/2007	1 U	**160**
MW-ES-09	5/21/2008	0.5 U	**150**
MW-ES-09 (dup)	10/29/2008	1 U	**150**
MW-ES-09	10/29/2008	1 U	**150**
MW-ES-09	4/30/2009	5 U	**140**
MW-ES-09 (dup)	11/11/2009	0.5 U	**70**
MW-ES-09	11/11/2009	0.5 U	**73**
MW-ES-09 (dup)	5/21/2010	0.5 U	**150**
MW-ES-09	5/21/2010	0.5 U	**150**
MW-ES-09	10/22/2010	0.5 U	**130**
MW-ES-09	5/26/2011	0.5 U	**120**
MW-ES-09 (dup)	5/26/2011	0.5 U	**120**
MW-ES-09	11/9/2011	0.5 U	**150**
MW-ES-09	6/5/2012	0.5 U	**150 J**
MW-ES-09	3/11/2013	1 U	**120**
MW-ES-09	9/26/2013	1 U	**120**
MW-ES-09	4/21/2014	1.0 U	**110**

Analyte		PCE	TCE
ROD Remediation Goal		5	5
Location ID	Date	(µg/L)	(µg/L)
MW-ES-10	5/11/2004	0.5 U	**83**
MW-ES-10	9/22/2004	1 U	**83**
MW-ES-10	4/27/2005	0.5 U	**78**
MW-ES-10	10/6/2005	0.5 U	**75**
MW-ES-10	3/22/2006	1 U	**65**
MW-ES-10	11/2/2006	1 U	**68**
MW-ES-10	6/8/2007	1 U	**63**
MW-ES-10	11/14/2007	1 U	**61**
MW-ES-10	5/21/2008	0.5 U	**46**
MW-ES-10	10/29/2008	1 U	**52**
MW-ES-10 (dup)	4/30/2009	5 U	**46**
MW-ES-10	4/30/2009	5 U	**34**
MW-ES-10	11/11/2009	0.5 U	**29**
MW-ES-10	5/21/2010	0.5 U	**53**
MW-ES-10 (dup)	10/22/2010	0.5 U	**54**
MW-ES-10	10/22/2010	0.5 U	**52**
MW-ES-10	5/26/2011	0.5 U	**36**
MW-ES-10	11/9/2011	0.5 U	**53**
MW-ES-10 (dup)	11/9/2011	0.5 U	**54**
MW-ES-10	6/5/2012	0.5 U	**67 J**
MW-ES-10	3/11/2013	1 U	**37**
MW-ES-10	9/26/2013	0.5 U	**36**
MW-ES-10	4/22/2014	0.20 U	**35**
MW-ES-11	5/31/2012	0.5 U	0.5 U
MW-ES-11	3/6/2013	1 U	1 U
MW-ES-11	9/17/2013	0.5 U	0.5 U
MW-ES-11 (dup)	9/17/2013	0.5 U	0.5 U
MW-ES-11	4/17/2014	0.20 U	**0.22**
MW-UI	5/12/2004	0.5 U	**21 J**
MW-UI	9/21/2004	1 U	**17**
MW-UI	4/26/2005	0.5 U	**8.8**
MW-UI	10/5/2005	0.5 U	**3.6**
MW-UI	3/17/2006	1 U	**5.2**
MW-UI	10/31/2006	1 U	**12**
MW-UI	6/6/2007	1 U	**23**
MW-UI	11/12/2007	1 U	**28**
MW-UI	5/19/2008	0.5 U	**16**
MW-UI	10/28/2008	1 U	**8.3**
MW-UI	4/27/2009	0.5 U	**7.9**
MW-UI	11/10/2009	0.5 U	**3.8**
MW-UI	5/19/2010	0.5 U	**7.8**
MW-UI	10/19/2010	0.5 U	**8.1**
MW-UI	5/24/2011	0.5 U	**11**
MW-UI	11/8/2011	0.5 U	**11**
MW-UI	5/29/2012	0.5 U	**9.3**
MW-UI	3/5/2013	1 U	**8.1**
MW-UI	9/19/2013	0.5 U	**6.6**
MW-UI	4/15/2014	0.20 U	**7.9**
PZ-704	6/6/2012	0.5 U	0.5 U
PZ-704	3/13/2013	1 U	1 U
PZ-704	9/23/2013	0.5 U	0.5 U
PZ-704	4/21/2014	0.20 U	0.20 U
PZ-709	6/6/2012	0.5 U	0.5 U
PZ-709	3/13/2013	1 U	1 U
PZ-709	9/23/2013	0.2 UJ	0.2 UJ
PZ-709	4/21/2014	0.20 U	0.20 U
PZ-715	6/6/2012	0.5 U	0.5 U
PZ-715	3/13/2013	1 U	1 U
PZ-715	9/23/2013	0.5 U	0.5 U
PZ-715	4/21/2014	0.20 U	0.20 U
PZ-719	6/6/2012	0.5 U	**1.7**
PZ-719 (dup)	3/14/2013	1 U	**1.5**
PZ-719	3/14/2013	1 U	**1.6**
PZ-719	9/24/2013	0.5 U	**2.1**
PZ-719	4/18/2014	0.20 U	**1.8**
PZ-720	2/1/2004	**1.1**	**17**
PZ-720	6/6/2012	0.5 U	**6.6 J**
PZ-720	3/14/2013	**0.38 J**	**5**
PZ-720	9/24/2013	**0.55**	**9.7**
PZ-720	4/18/2014	**0.40**	**5.5**
PZ-721	2/1/2004	**0.79**	**98**
PZ-721	11/2/2006	**0.69 J**	**59**
PZ-721	6/5/2007	1 U	**35**
PZ-721	11/14/2007	**0.53 J**	**52**
PZ-721	5/21/2008	**0.39 J**	**41**
PZ-721	10/27/2008	1 U	**19**
PZ-721	4/30/2009	5 U	**35**
PZ-721	11/11/2009	0.5 U	**27**
PZ-721	5/19/2010	**0.2 J**	**41**
PZ-721	10/20/2010	0.5 U	**48**
PZ-721	5/26/2011	0.5 U	**30**
PZ-721	6/6/2012	0.5 U	**38**
PZ-721	3/14/2013	1 U	**30**
PZ-721	9/24/2013	0.5 U	**54**
PZ-721 (dup)	9/24/2013	0.5 U	**54**
PZ-721	4/22/2014	0.20 U	**37**
PZ-721 (dup)	4/22/2014	0.20 U	**37**

Analyte		PCE	TCE
ROD Remediation Goal		5	5
Location ID	Date	(µg/L)	(µg/L)
PZ-722	6/6/2012	0.5 U	0.5 U
PZ-722	3/14/2013	1 U	1 U
PZ-722	9/25/2013	0.5 U	0.5 U
PZ-722	4/22/2014	0.20 U	0.20 U
PZ-723 (dup)	6/6/2012	0.5 U	0.5 U
PZ-723	6/6/2012	0.5 U	0.5 U
PZ-723	3/14/2013	1 U	1 U
PZ-723	9/25/2013	0.5 U	0.5 U
PZ-723	4/23/2014	0.20 U	0.20 U
PZ-724	2/1/2004	**0.45 J**	**39**
PZ-724	11/2/2006	1 U	**37**
PZ-724	6/5/2007	1 U	**15**
PZ-724	11/14/2007	1 U	**32**
PZ-724	5/21/2008	**0.22 J**	**87**
PZ-724	10/27/2008	1 U	**44**
PZ-724	4/30/2009	5 U	**35**
PZ-724	11/11/2009	0.5 U	**28**
PZ-724	5/19/2010	0.5 U	**34**
PZ-724	10/20/2010	0.5 U	**43**
PZ-724	5/26/2011	0.5 U	**30**
PZ-724	6/7/2012	0.5 U	**13**
PZ-724	3/14/2013	1 U	**32**
PZ-724	9/25/2013	0.5 U	**43**
PZ-724	4/22/2014	0.20 U	**29**
PZ-725	2/1/2004	0.5 U	**0.35 J**
PZ-725	6/8/2012	0.5 U	0.5 U
PZ-725	3/14/2013	1 U	1 U
PZ-725	4/22/2014	0.20 U	0.20 U
PZ-726	2/1/2004	0.5 U	**3.1**
PZ-726	6/8/2012	0.5 U	**3.4 J**
PZ-726	3/12/2013	1 U	**2.7**
PZ-726	9/25/2013	0.5 U	**3.8**
PZ-726	4/23/2014	0.20 U	**3.1**
PZ-728	2/1/2004	0.5 U	**31**
PZ-728	11/2/2006	1 U	**16**
PZ-728	6/5/2007	1 U	**18**
PZ-728	11/14/2007	1 U	**21**
PZ-728	5/21/2008	0.5 U	**14**
PZ-728	10/27/2008	1 U	**51**
PZ-728	4/30/2009	5 U	**9.1**
PZ-728	11/11/2009	0.5 U	**8.2**
PZ-728	5/19/2010	0.5 U	**10**
PZ-728	10/20/2010	0.5 U	**12**
PZ-728	5/26/2011	0.5 U	**6**
PZ-728	6/8/2012	0.5 U	**4.5 J**
PZ-728	3/7/2013	1 U	**4.7**
PZ-728	9/25/2013	0.5 U	**5.1**
PZ-728	4/23/2014	0.20 U	**4.2**
RPZ-730	6/4/2012	0.5 U	0.5 U
RPZ-730	3/13/2013	1 U	1 U
RPZ-730	9/24/2013	0.5 U	0.5 U
RPZ-730	4/23/2014	0.20 U	0.20 U
RPZ-731	6/4/2012	0.5 U	**0.61**
RPZ-731	3/13/2013	1 U	**0.6 J**
RPZ-731	9/24/2013	0.5 U	**1.6**
RPZ-731	4/23/2014	0.20 U	**0.65**
RPZ-732	6/5/2012	0.5 U	0.5 U
RPZ-732	3/12/2013	1 U	1 U
RPZ-732	9/24/2013	0.5 U	0.5 U
RPZ-732	4/22/2014	**0.23**	0.20 U
ST-1	5/21/2008	0.5 U	0.5 U
ST-1	5/23/2011	0.5 U	0.5 U
ST-1	11/7/2011	0.5 U	0.5 U
ST-1	4/18/2014	0.20 U	0.20 U
ST-2	5/21/2008	0.5 U	0.5 U
ST-2	4/29/2009	0.5 U	0.5 U
ST-2	11/10/2009	0.5 U	0.5 U
ST-2	5/18/2010	0.5 U	0.5 U
ST-2	10/20/2010	0.5 U	0.5 U
ST-2	3/7/2013	1.0 U	1.0 U
ST-2	9/18/2013	0.5 U	0.5 U
TW-2	11/2/2006	1 U	**10**
TW-2	6/5/2007	1 U	**14**
TW-2	11/14/2007	1 U	**8.9**
TW-2	5/21/2008	0.5 U	**5**
TW-2	10/29/2008	1 U	**6.3**
TW-2	4/29/2009	0.5 U	**9**
TW-2	11/10/2009	0.5 U	**6.5**
TW-2	5/18/2010	0.5 U	**14**
TW-2	10/20/2010	0.5 U	**10**
TW-2	5/23/2011	0.5 U	**8.3**
TW-2	11/7/2011	0.5 U	**12**

Analyte		PCE	TCE
ROD Remediation Goal		5	5
Location ID	Date	(µg/L)	(µg/L)
TW-4	11/2/2006	1 U	**2.1**
TW-4	6/4/2007	1 U	**3.3**
TW-4	11/14/2007	1 U	**2.2**
TW-4	5/21/2008	0.5 U	**0.61**
TW-4	10/29/2008	1 U	**1.3**
TW-4	4/30/2009	0.5 U	**1.3**
TW-4	11/10/2009	0.5 U	**0.85**
TW-4	5/18/2010	0.5 U	**1.1**
TW-4	10/20/2010	0.5 U	**0.76**
TW-4	5/23/2011	0.5 U	0.5 U
TW-4	11/7/2011	0.5 U	0.5 U
TW-4	6/11/2012	0.5 U	**0.71 J**
TW-4	3/7/2013	1 U	**1.7**
TW-4	9/18/2013	0.5 U	**1.3**
TW-4	4/18/2014	0.20 U	**0.43**
TW-5	11/2/2006	1 U	**6.5**
TW-5	6/5/2007	1 U	**10**
TW-5	11/14/2007	1 U	**8.4**
TW-5	5/21/2008	0.5 U	**3.8**
TW-5	10/29/2008	1 U	**3.7**
TW-5	4/29/2009	0.5 U	**2.5**
TW-5	11/10/2009	0.5 U	**1.1**
TW-5	5/18/2010	0.5 U	**1.2**
TW-5	10/20/2010	0.5 U	0.5 U
TW-5	5/23/2011	0.5 U	0.5 U
TW-5	11/7/2011	0.5 U	0.5 U
TW-5	6/11/2012	0.5 U	0.5 U
TW-5	3/7/2013	1 U	1 U
TW-5	9/18/2013	0.5 U	0.5 U
TW-8	6/11/2012	0.5 U	0.5 U
TW-8	3/7/2013	1 U	1 U
TW-8	9/18/2013	0.5 U	0.5 U
TW-8	4/18/2014	0.20 U	0.20 U
TW-16	4/18/2014	0.20 U	**9.6**
WDOT-MW-1	5/31/2012	0.5 U	0.5 U
WDOT-MW-1	3/7/2013	1 U	1 U
WDOT-MW-1	9/18/2013	0.5 U	0.5 U
WDOT-MW-1	4/16/2014	0.20 U	0.20 U
WDOT-MW-2	5/31/2012	0.5 U	0.5 U
WDOT-MW-2	3/6/2013	1 U	1 U
WDOT-MW-2	9/18/2013	0.5 U	0.5 U
WDOT-MW-2	4/16/2014	0.20 U	0.20 U

Analyte		PCE	TCE
ROD Remediation Goal		5	5
Location ID	Date	(µg/L)	(µg/L)
Seep 1	5/30/2012	0.5 U	0.5 U
Seep 1	3/19/2013	1 U	1 U
Seep 1	10/2/2013	0.5 U	0.5 U
Seep 1	4/21/2014	0.20 U	0.20 U
Seep 2	5/30/2012	0.5 U	0.5 U
Seep 2	3/19/2013	1 U	1 U
Seep 2	10/2/2013	0.5 U	0.5 U
Seep 2	4/21/2014	0.20 U	0.20 U
Seep 3	5/31/2012	0.5 U	0.5 U
Seep 3	3/19/2013	1 U	1 U
Seep 3	10/2/2013	0.5 U	0.5 U
Seep 3	4/21/2014	0.20 U	0.20 U
Seep 5	5/31/2012	0.5 U	0.5 U
Seep 5 (dup)	5/31/2012	0.5 U	0.5 U
Seep 5	3/19/2013	1 U	1 U
Seep 5 (dup)	3/19/2013	1 U	1 U
Seep 5	10/2/2013	0.5 U	0.5 U
Seep 5 (dup)	10/2/2013	0.5 U	0.5 U
Seep 5	4/21/2014	0.20 U	0.20 U
Seep 5 (dup)	4/21/2014	0.20 U	0.20 U

Notes:

µg/L = microgram per liter

J = detected above the method detection limit but below the reporting limit

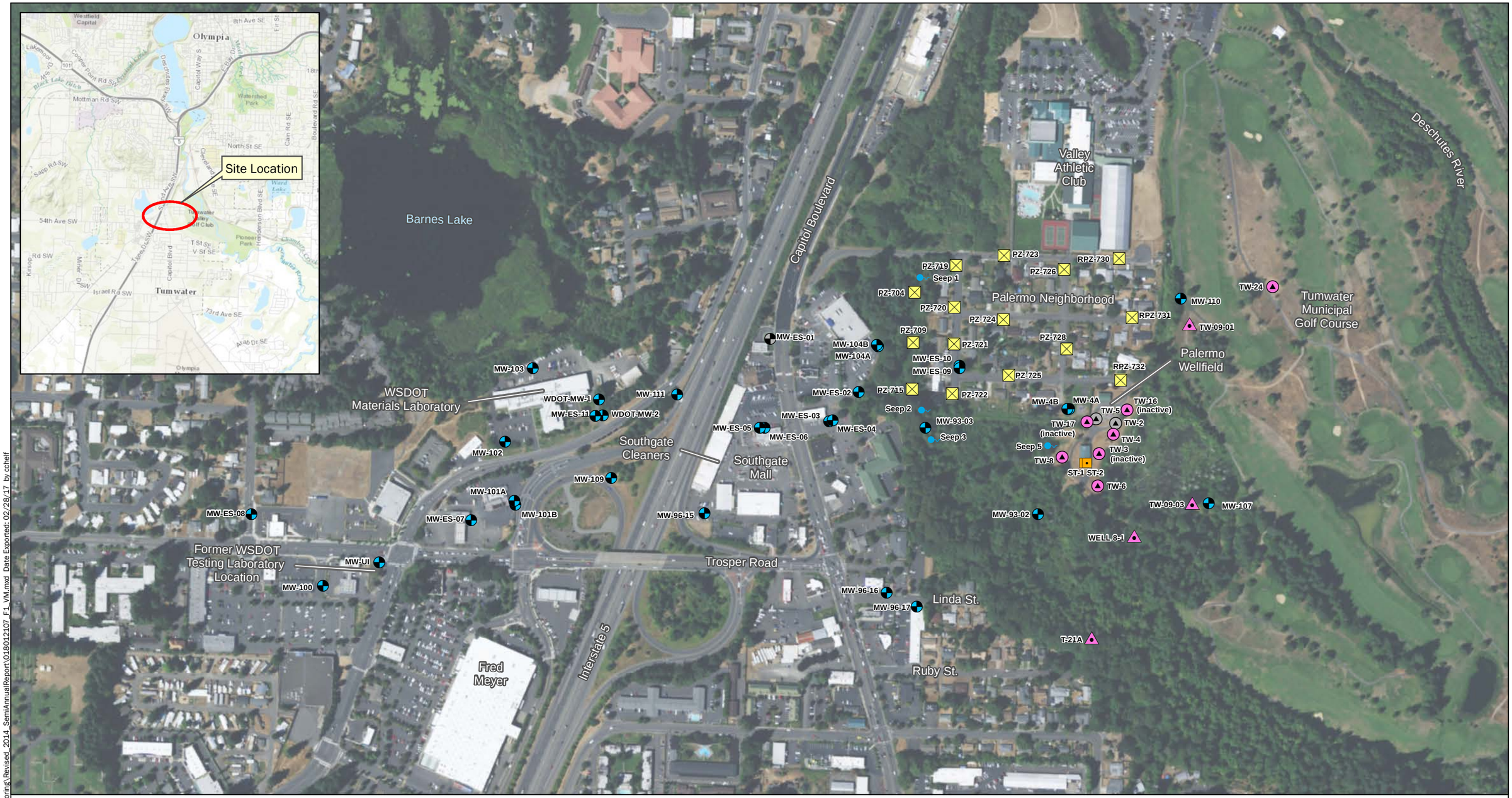
dup = field duplicate sample

U = not detected at or above the reporting limit

Bold font type indicates the analyte was detected above the reporting limit.

Gray shading indicates the analyte was detected above the ROD Remediation Goal.

Samples were also initially analyzed for 1,1-DCE, trans-1,2-DCE, cis-1,2-Dichloroethene and vinyl chloride.



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Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. TW-3. TW-16 and TW-17 are installed but not operating.

Data Source: Long term monitoring locations provided by Parametrix 2012 and Skillngs Connolly, Inc. 2014. Imagery from ESRI 2013.
Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

- Monitoring well and identifier
- Piezometer and identifier
- Groundwater seep and identifier
- City production well and identifier
- City test well and identifier
- Stripper tower and identifier
- Former city production well and identifier
- Former monitoring well and identifier

N W E S

400 0 400

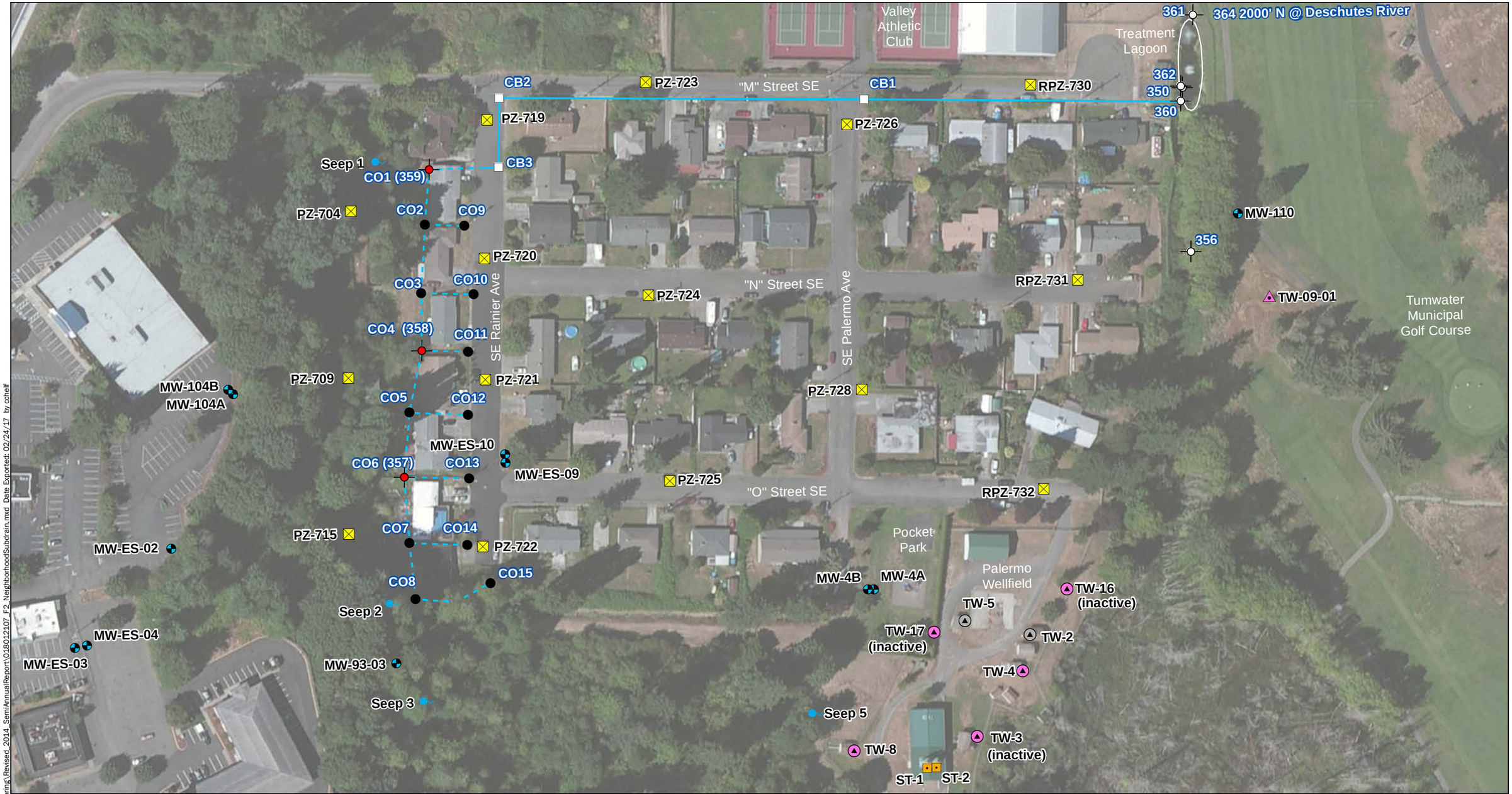
Feet

Site Plan

Palermo Wellfield Superfund Site

GeoEngineers

Figure 1



Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. TW-3, TW-16, and TW-17 are installed but not operating.

Data Source: Long-term monitoring locations from Parametrix 2012. Subdrain layout provided by URS 2000, Imagery from ESRI 2013.
Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

- Monitoring well and identifier
- Piezometer and identifier
- Groundwater seep and identifier
- City production well and identifier
- City test well and identifier
- Stripper tower and identifier
- Former city production well and identifier
- Catch basin and identifier
- Subdrain cleanout sampling station and identifier
- Treatment lagoon sampling station and identifier
- Cleanout location and identifier
- Subdrain tightline pipe
- Subdrain perforated pipe

N W E S

120 0 120
Feet

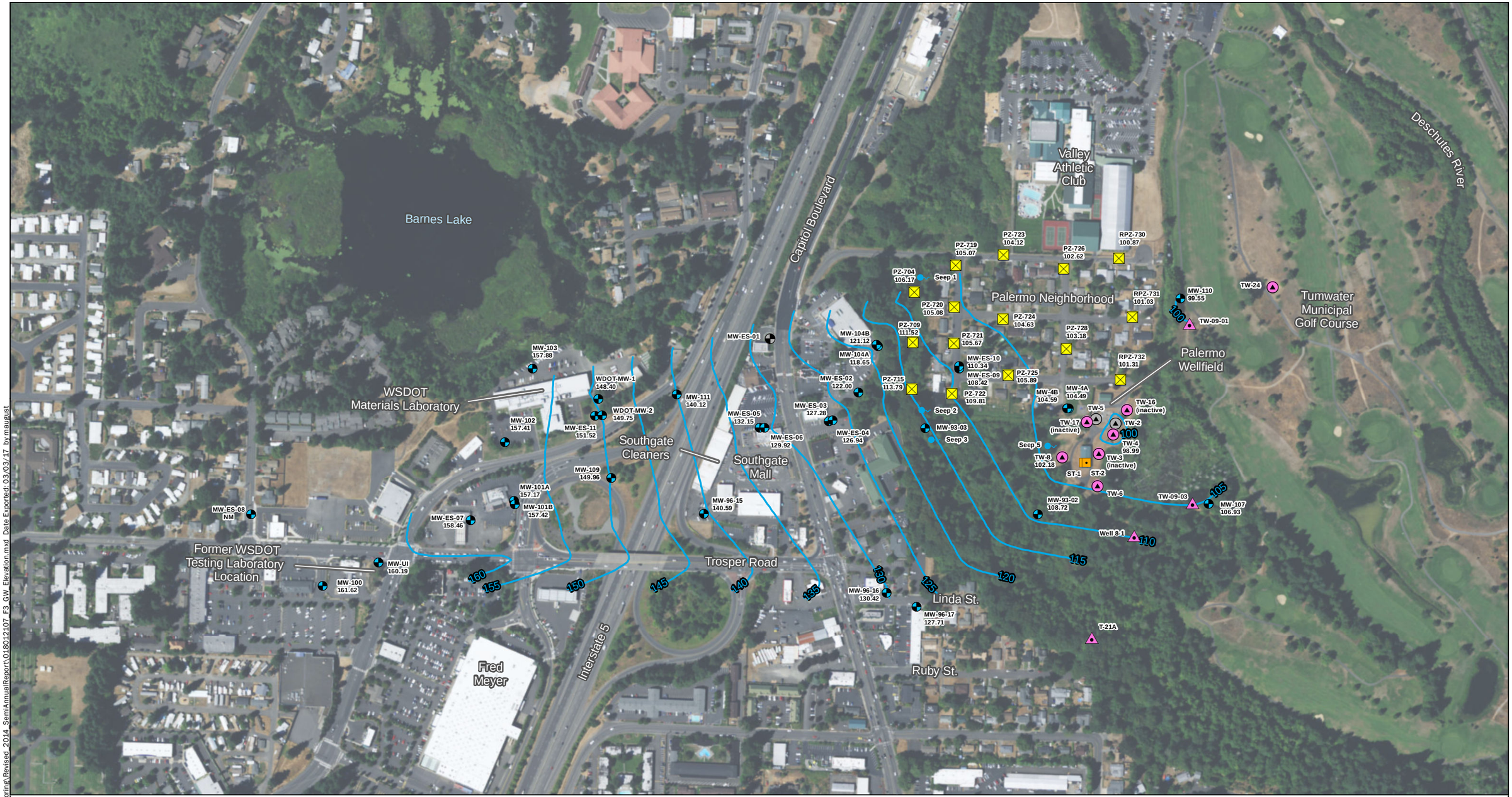
Palermo Neighborhood and Subdrain

Palermo Wellfield Superfund Site

GeoEngineers

Figure 2

P:\0180121\GIS\MXDs\GroundWater_Monitoring\Revised_2014_SemiAnnualReport\0180121107_F2_NeighborhoodSubdrain.mxd Date Exported: 02/24/17 by cshelf



Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc.and will serve as the official record of this communication.
3. TW-3, TW-16 and TW-17 are installed but not operating.
4. Groundwater elevations collected April 14, 2014.
5. Groundwater elevation estimated using Surfer (Golden Software) 8.0 contouring software using the Natural Neighbor gridding method.
6. Groundwater elevations are relative to NAVD88 datum.

Data Source: Long-term monitoring locations provided by Parametrix 2012.
Imagery from ESRI 2013.
Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

- Monitoring well and identifier
- Piezometer and identifier
- Groundwater seep and identifier
- City production well and identifier
- City test well and identifier
- Stripper tower and identifier
- Former city production well and identifier
- Former monitoring well and identifier
- 100 Estimated groundwater elevation
- NM Not Measured

N W E S

400 0 400
Feet

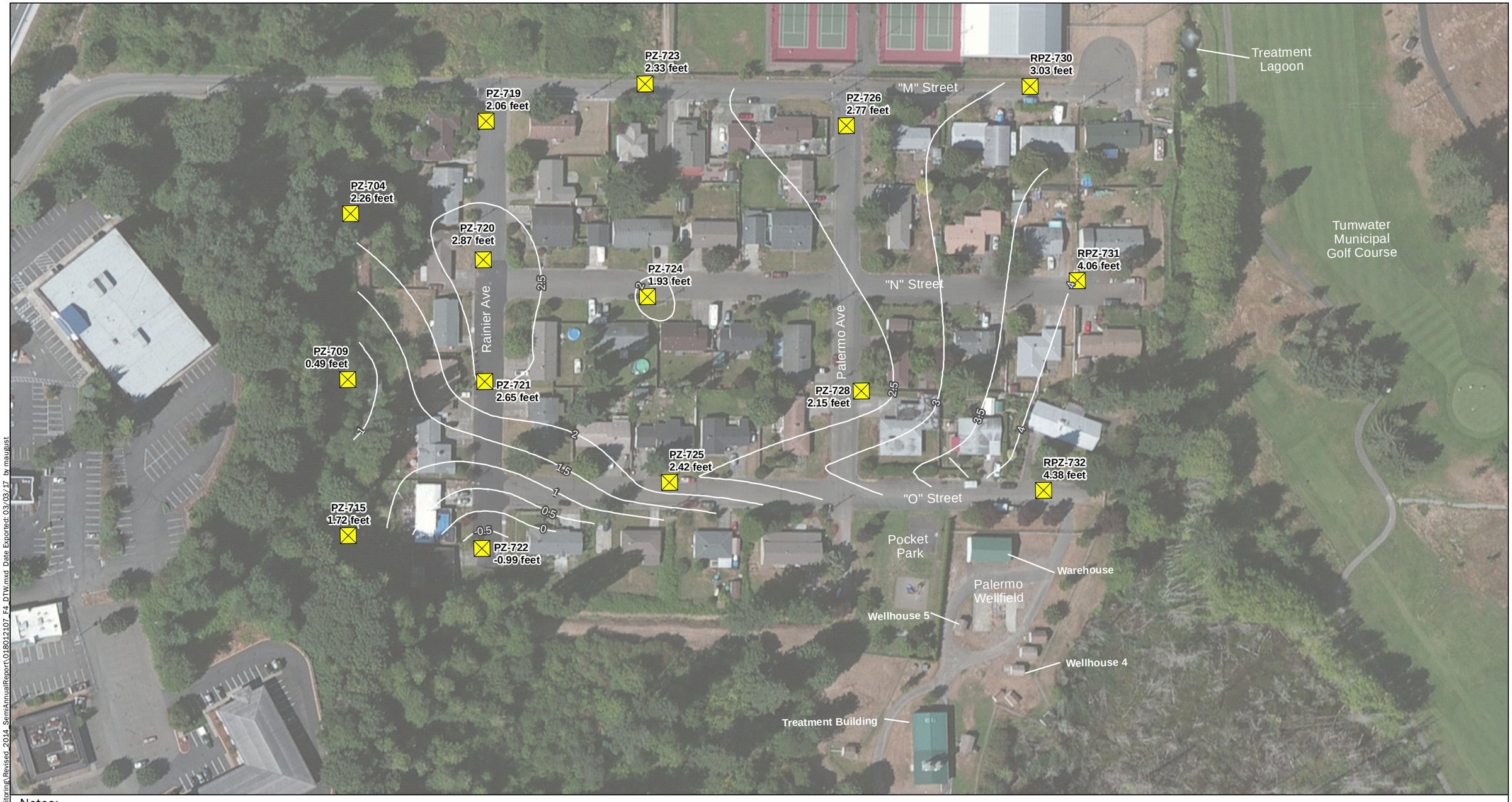
Spring 2014
Generalized Groundwater Elevations

Palermo Wellfield Superfund Site

GeoEngineers

Figure 3

P:\0\0180121\GIS MXDs\GroundWater_Monitoring\Revised_2014_SemiAnnualReport\0180121107_F3_GW_Elevation.mxd Date Exported: 03/03/17 by maugust



P:\0180121\GIS MXDs\GroundWater_Monitoring\Revised_2014_SemiAnnualReport\0180121107_F4_DTW.mxd Date Exported: 03/09/17 by mauguist

Notes:

1. Depth to water measurements were made on April 14, 2014.
2. The locations of all features shown are approximate.
3. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
4. Contours were generated using Surfer 8.0 (Golden Software) contouring software using the natural neighbor gridding method.
5. Depth to water measurements at RPZ-730, RPZ-731, and RPZ-732 are calculated from the tops-of-casings, which are slightly below the flush-mounted monument.

Data Source: Elevation Datum Reference: NAVD88.
Imagery From ESRI 2013
Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Piezometer, identifier, and depth to groundwater

Estimated or inferred goundwater depth-to-water contours (piezometers)

N
W E
S

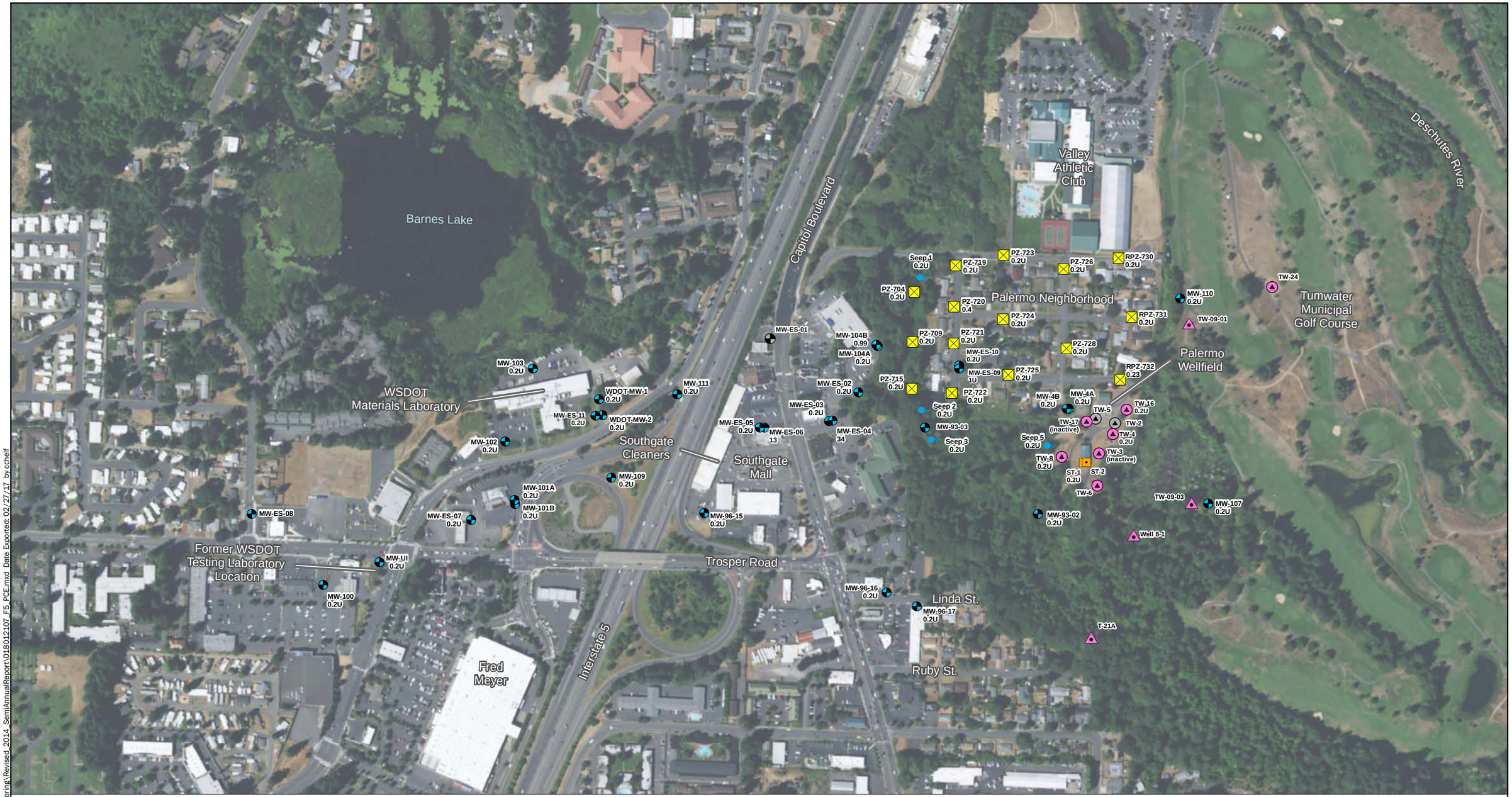
120 0 120
Feet

Spring 2014
Estimated Depth to Groundwater

Palermo Wellfield Superfund Site

GeoEngineers

Figure 4



Notes:

1. Concentrations presented in µg/L
2. The locations of all features shown are approximate.
3. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
4. TW-3, TW-16 and TW-17 are installed but not operating.
5. Groundwater samples collected from April 14 to 23, 2014.

Data Source: Long-term monitoring locations provided by Parametrix 2012.
Imagery from ESRI 2013.
Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

- Monitoring well and identifier
- Piezometer and identifier
- Groundwater seep and identifier
- City production well and identifier
- City test well and identifier
- Stripper tower and identifier
- Former city production well and identifier
- Former monitoring well and identifier
- U — Compound not detected at the reporting limit
- J — Estimated concentration

N W E S

400 0 400
Feet

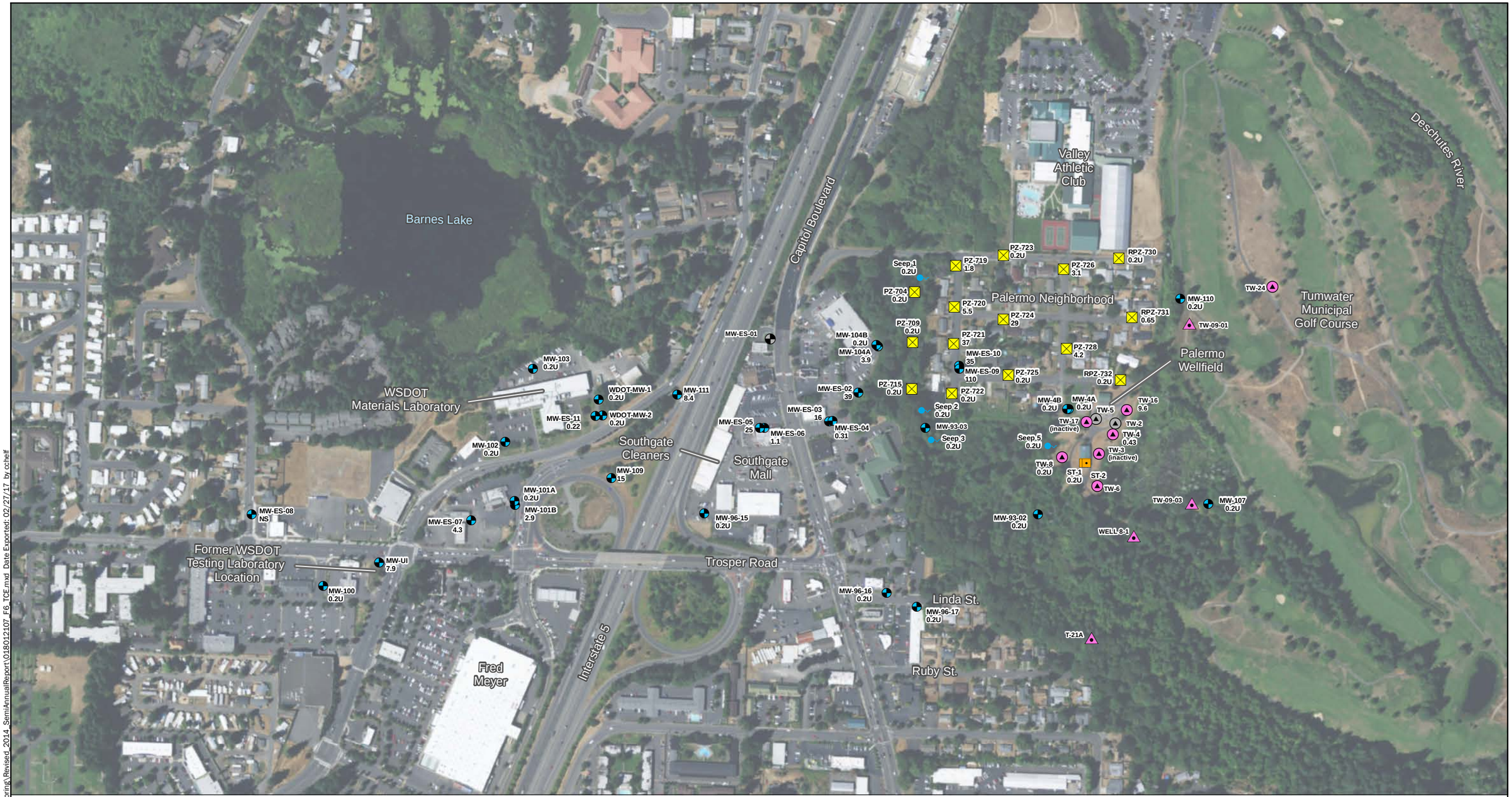
Spring 2014
PCE Concentrations in Groundwater (µg/L)

Palermo Wellfield Superfund Site

GeoEngineers

Figure 5

P:\0\0280121\GIS\MXDs\GroundWater_Monitoring\Revised_2014_SemiAnnualReport\0180121\07_F5_PCE.mxd Date Exported: 02/27/17 by:cheif



Notes:

1. Concentrations presented in µg/L
2. The locations of all features shown are approximate.
3. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
4. TW-3, TW-16, and TW-17 are installed but not operating.
5. Groundwater samples were collected form April 14 to 23, 2014.

Data Source: Long-term monitoring locations provided by Parametrix 2012.
Imagery from ESRI 2013.
Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

- Monitoring well and identifier
- Piezometer and identifier
- Groundwater seep and identifier
- City production well and identifier
- City test well and identifier
- Stripper tower and identifier
- Former city production well and identifier
- Former monitoring well and identifier
- U — Compound not detected at the reporting limit
- J — Estimated concentration
- NS — Not Sampled

N W E S

400 0 400

Feet

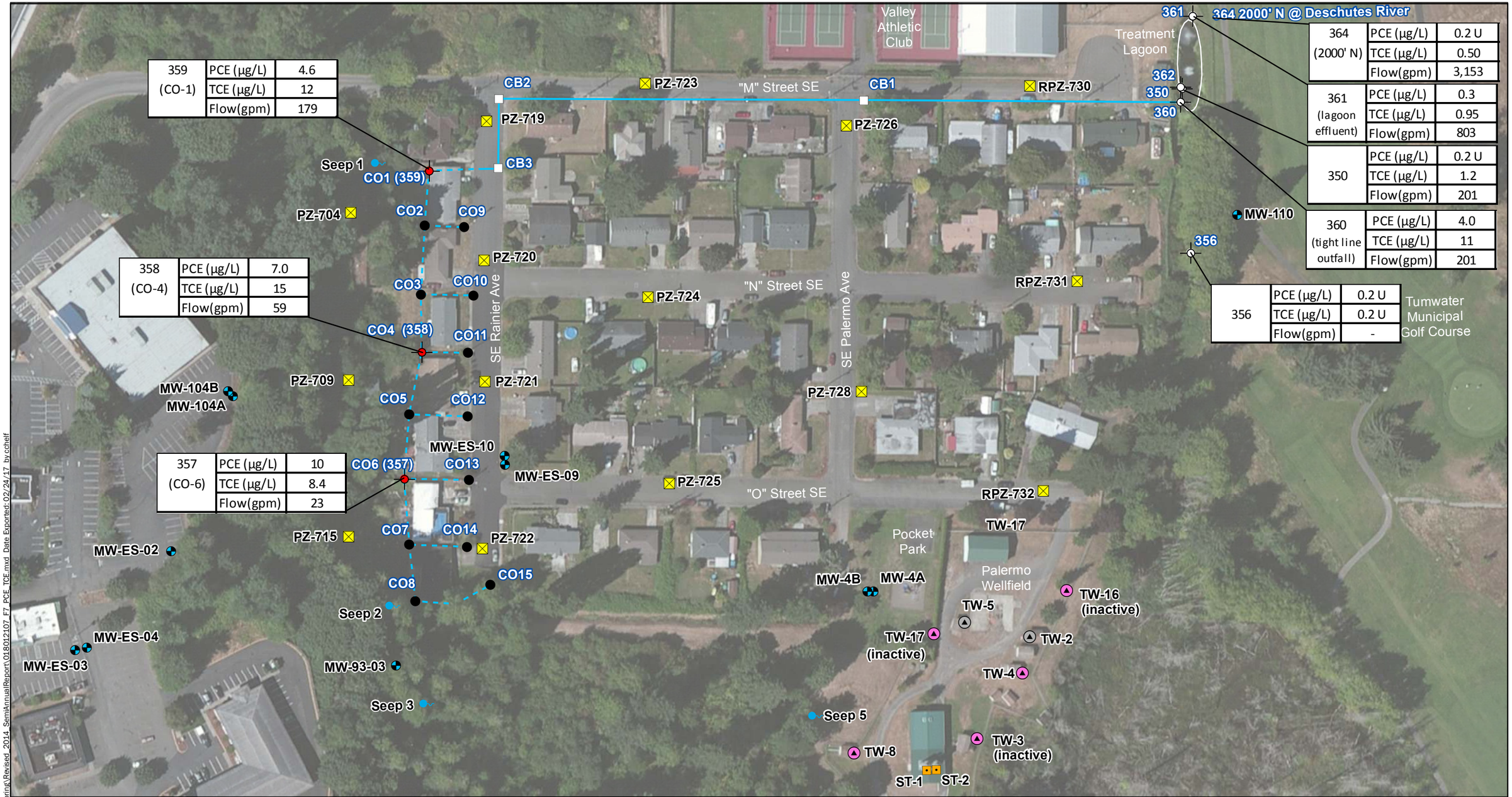
Spring 2014
TCE Concentrations in Groundwater (µg/L)

Palermo Wellfield Superfund Site

GeoEngineers

Figure 6

P:\0\0180121\GIS\MXDs\GroundWater_Monitoring\Revised_2014_SemiAnnualReport\0180122107_F6_TCE.mxd Date Exported: 02/27/17 by cchelf



Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. TW-3, TW-16 and TW-17 are installed but not operating.
4. Subdrain and lagoon samples were collected on April 29, 2014.

Data Source: Long-term monitoring locations from Parametrix 2012. Subdrain layout provided by URS 2000, Imagery from ESRI 2013.
Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

- Monitoring well and identifier
- Piezometer and identifier
- Groundwater seep and identifier
- City production well and identifier
- City test well and identifier
- Stripper tower and identifier
- Former city production well and identifier
- Catch basin and identifier
- Subdrain cleanout sampling station and identifier
- Treatment lagoon sampling station and identifier
- Cleanout location and identifier
- U — Compound not detected at the reporting limit
- J — Estimated concentration
- NC — Not calculated
- Subdrain tightline pipe
- Subdrain perforated pipe

N W E S

120 0 120
Feet

Spring 2014 - Subdrain and Treatment Lagoon Monitoring Results Palermo Neighborhood

Palermo Wellfield Superfund Site

GeoEngineers

Figure 7

P:\0\0180121\GIS\MXDs\GroundWater_Monitoring\Revised_2014_SemiAnnualReport\0180121107_F7_PCE_TCE.mxd Date Exported: 02/24/17 by:cheif

APPENDIX A
Field Sampling Forms

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector GMB/MH Sample Time 0950 Sample ID **MW-100-14**041415

PURGE DATA

Well Condition: Secure [ ] Yes [X] No Describe Damage 2 BOLTS MISSING ON MON., 3 BOLTS MISSING

(Padlock brand and number)

Depth to Water (from top of well casing) 16.18

Depth to Base of Well **30 feet** Height of Water Column 13.82

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 2.25

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 2.5

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** RAINIER AVE SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 04/15/14

Sample Location and Depth **MW-100: Screen mid-point at 25 feet BGS** WATER ABOVE SCREEN Time Collected 0950

Tidal Cycle NA[X] High Tide at Low Tide at Weather (*Circle*)

Cloudy Overcast Clear

Rain Showers Snow

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment**

Sample Collected with [ ] Bailer [X] Pump [ ] Other

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODOR FREE

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
0925	16.32	0.5	5.85	0.145	178	8.40	13.91	123.0
0931	16.29	1.0	5.88	0.105	32.1	4.81	14.71	84.6
0935	16.29	1.5	5.89	0.103	10.2	4.31	14.72	92.9
0940	16.29	2.0	5.92	0.104	10.4	4.07	14.87	98.0
0945	16.29	2.5	5.90	0.104	10.39	3.97	14.75	95.2

Meters Used for Measurement (*Circle*) **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 39

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 500 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) N/A

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

~~**MS/MSD collected. Sample ID =**~~ N/A

Signature Date 4/15/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector ________ Sample Time ________ Sample ID **MW-100-14-**

FIELD PARAMETERS (cont.)

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm)(±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	TDS (mg/l)	ORP (mV) (±10mV)

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB/MW Sample Time 1105 Sample ID **MW-UI-14-140415**

PURGE DATA

Well Condition: Secure [ ] Yes [N] No Describe Damage N/A RUNS REPLACED 3 BOLTS

(Padlock brand and number)

Depth to Water (from top of well casing) 18.69

Depth to Base of Well **27.7700004577637 fee** Height of Water Column 1.54 9.08 BMB

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 1.54

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 3.5

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at RAINIER AVE SOUTH**

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 04/15/14

Sample Location and Depth **MW-UI: Screen mid-point at 22.7 feet BGS** LATER ABOVE SCREEN Time Collected 1105

Tidal Cycle NA [N] High Tide at Low Tide at Weather (Circle)

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment** **Cloudy Overcast Clear Rain Showers Snow**

Sample Collected with [ ] Bailer [N] Pump [ ] Other

Made of [N] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1030	18.69	0.5	5.99	0.092	4.16	13.81	12.43	146.5
1035	18.69	1.0	4.28	0.092	4.02	13.58	13.39	214.1
1040	—	—	—	—	—	8.17 BMB	—	—
1040	18.81	1.5	4.79	0.091	3.32	8.37	13.46	186.0
1045	18.61	2.0	5.04	0.088	3.53	8.30	13.98	175.0
1050	18.75	2.5	5.32	0.091	3.18	8.77	14.73	165.5
1055	19.77	3.0	5.42	0.095	3.03	8.73	15.04	171.9
1100	18.99	3.5	5.41	0.094	3.18	9.06	14.07	170.3

Meters Used for Measurement (Circle) **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [N] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 39

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 300 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) N/A

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

Rinsate collected. Sample ID = * EIN-1-140415

Signature Date 4/15/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector ______ Sample Time ______ Sample ID **MW-UI-14-**

FIELD PARAMETERS (cont.)

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm)(±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	TDS (mg/l)	ORP (mV) (±10mV)

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HLM Sample Time 0935 Sample ID **MW-ES-07-14-0415**

PURGE DATA

Well Condition: Secure [ ] Yes [X] No Describe Damage No bolts, small master lock, water in monument

(Padlock brand and number) P493

Depth to Water (from top of well casing) 19.50 ft

Depth to Base of Well **35 feet** Height of Water Column 14.50

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 2.5

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type) _____

Gallons Purged 2

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
(2)	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/15/14

Sample Location and Depth **MW-ES-07: Screen mid-point at 30 feet BGS** sampled at 30 feet Time Collected 0935

Tidal Cycle NA [X] High Tide at _____ Low Tide at _____ Weather (Circle)

(Cloudy) Overcast Clear Rain Showers Snow

Sample type (Groundwater, Product, Other) **(GW) SW Soil Sediment**

Sample Collected with [ ] Bailer [X] Pump [ ] Other _____

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [X] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) clear, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
0914	19.51	0	6.34	0.115	7.57	5.02	14.0	255.5
0918	19.51	0.5	6.27	0.126	6.42	3.84	14.7	263.3
0922	—	0.75	6.30	0.127	5.67	3.66	15.0	266.2
0926	19.52	1.0	6.28	0.127	4.67	3.59	15.2	259.6
0930	—	1.5	6.40	0.127	3.02	3.62	15.2	250.5

Meters Used for Measurement (Circle) **(YSI Pro Plus)** **YSI 556** **(Hach 2100Q)**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T-19

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 300 **ml/min purge rate** @ 105 Hz

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) ~~MS/MSD~~ None

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered (Not Filtered)**

Signature _____ Date 4/15/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector ______ Sample Time ______ Sample ID **MW-ES-07-14-**

FIELD PARAMETERS (cont.)

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm)(±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	TDS (mg/l)	ORP (mV) (±10mV)

GROUNDWATER SAMPLE COLLECTION FORM

Project: **Palermo Wellfield** | Job No. **0180-121-09** | Collector PDR/HLM | Sample Time 1040 | Sample ID **MW-101A-140415**

PURGE DATA

Well Condition: Secure [X] Yes [ ] No | Describe Damage: Bentonite swelling near J-plug

(Padlock brand and number) Masterlock P493

Depth to Water (from top of well casing) 19.03

Depth to Base of Well **75 feet** 73.64 | Height of Water Column 54.5

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 9 gal

Purge Method | Pump (type) **Grundfos** **Peristaltic** | Bailer (type)

Gallons Purged 3

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/15/14 | Time Collected 1040

Sample Location and Depth **MW-101A: Screen mid-point at 70 feet BGS** sampled at 70 feet

Tidal Cycle NA [X] | High Tide at | Low Tide at | Weather (Circle) **Cloudy** **Overcast** **Clear** **Rain** **Showers** **Snow**

Sample type (Groundwater, Product, Other) (**GW**) **SW** **Soil** **Sediment**

Sample Collected with [ ] Bailer [X] Pump [ ] Other

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [X] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) clear, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1010	19.15	0	6.78	0.100	4.22	3.73	13.8	247.9
1014	19.32	0.5	6.84	0.135	27.9	1.56	13.0	253.6
1018	19.35	1.0	6.88	0.140	18.3	1.34	13.3	254.4
1024	19.35	1.5	6.98	0.144	10.7	1.17	13.4	253.7
1028	19.31	2.0	7.11	0.147	6.74	1.26	13.5	246.3
1032	19.31	2.5	7.21	0.147	5.47	1.16	13.6	238.3
1036	—	2.75	7.27	0.148	4.75	1.12	13.7	229.5

Meters Used for Measurement (Circle) **YSI Pro Plus** **YSI 556** **Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No | Spectrophotometer **Hach 2100Q** | E-Tape **T-** 19

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate** 105.0 Hz

Analyses, Number and Volume of Sample Containers 9 **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) MS/MSD

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered** (**Not Filtered**)

MS/MSD collected. Sample ID = MW-101A-140415

Signature | Date 4/15/14 | Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector ________ Sample Time ________ Sample ID **MW-101A-14-**

FIELD PARAMETERS (cont.)

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm)(±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	TDS (mg/l)	ORP (mV) (±10mV)

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HLM Sample Time 1230 Sample ID **MW-101B-140415**

PURGE DATA

Well Condition: Secure [ ] Yes [X] No Describe Damage 2 loose bolts

(Padlock brand and number) Masterlock P493

Depth to Water (from top of well casing) 18.84

Depth to Base of Well **35 feet** Height of Water Column 16.16

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 2.7

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 16

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
(2)	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/15/14 Sample Location and Depth **MW-101B: Screen mid-point at 30 feet BGS** sampled at 30 feet Time Collected 1230

Tidal Cycle NA [ ] High Tide at Low Tide at Weather (*Circle*) **Cloudy Overcast Clear Rain Showers Snow**

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment**

Sample Collected with [ ] Bailer [ ] Pump [ ] Other

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) cloudy, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp.* (deg C) (±1deg)	ORP (mV) (±10mV)
1108	18.85	0	6.97	0.124	382	3.29	16.5	209.7
1112	18.88	0.5	6.68	0.130	936	3.05	16.0	214.5
1117	18.89	1.0	6.61	0.131	654	3.04	16.1	216.4
1120	18.89	1.25	6.62	0.130	498	3.22	15.7	219.0
1127	18.88	2.0	6.66	0.129	266	3.41	15.9	223.0
1133	—	2.5	6.56	0.131	152	3.02	~~16.5~~	233.8
1140	18.90	3.0	6.57	0.129	88.8	2.79	16.6	226.3
1147	18.88	3.5	6.59	0.132	54.5	2.55	17.0	227.1
1155	18.85	4.0	6.58	0.155	44.9	2.30	17.4	230.0
1202	18.86	4.5	6.60	0.132	34.3	2.25	17.2	231.6
1206	18.86	4.5	6.58	0.131	32.2	2.20	17.1	233.2

Meters Used for Measurement (*Circle*) **YSI Pro Plus** **YSI 556** **Hach 2100Q**

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 19

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate** 101.0 HZ

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) none

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered** **Not Filtered**

Rinsate collected. Sample ID = RIN-2-140415

* sunshine warmed up flow-through cell and Temp may be falsely high

Signature Date 4/15/14 Page 1 of 2

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector DR/MLM Sample Time 1230 Sample ID **MW-101B-14-0415**

FIELD PARAMETERS (cont.)

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm)(±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	TDS (mg/l)	ORP (mV) (±10mV)
1211	18.86	5.0	6.53	0.133	26.9	2.10	17.6	—	235.0
1214	—	5.25	6.59	0.134	23.7	1.99	17.7	—	236.1
1217	18.86	5.3	6.58	0.134	20.7	1.97	17.6	—	236.7
1222	—	5.5	6.61	0.135	21.2	1.87	18.0	—	238.0
1226	18.86	5.7	6.52	0.136	23.1	1.75	18.4	—	238.7

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector DR/HLM Sample Time 1155 Sample ID **MW-102-140417**

PURGE DATA

Well Condition: Secure [ ] Yes [X] No Describe Damage 3 loose bolts

(Padlock brand and number) Masterlock P493

Depth to Water (from top of well casing) 9.61

Depth to Base of Well **26 feet** 23.75 Height of Water Column 14.14

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) ~~4~~ 2.4

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 5

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/17/14

Sample Location and Depth **MW-102: Screen mid-point at 21 feet BGS** 22 Ft Time Collected 1155

Tidal Cycle NA [X] High Tide at Low Tide at Weather *(Circle)*

Sample type (Groundwater, Product, Other) **(GW) SW Soil Sediment** **(Cloudy) Overcast Clear**

Sample Collected with [ ] Bailer [X] Pump [ ] Other **(Rain) Showers Snow**

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) light pink, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1107	9.78	0.25	5.85	0.064	64.0	2.76	12.2	250.9
1112	9.75	0.75	5.59	0.065	54.9	2.54	12.8	259.8
1117	9.74	1.25	5.64	0.068	40.2	2.43	13.2	256.6
1120	9.74	1.75	5.70	0.070	47.1	2.41	13.2	254.0
1124	9.74	2.25	5.74	0.071	39.4	2.37	13.3	252.8
1128	—	2.5	5.75	0.072	30.2	2.30	13.3	252.5
1132	9.74	3.0	5.76	0.073	21.1	2.24	13.4	253.1
1137	—	3.5	5.77	0.076	16.0	2.20	13.3	253.4
1141	9.75	4.0	5.78	0.076	11.5	2.14	13.3	254.1
1145	9.75	4.5	5.79	0.077	6.31	2.10	13.3	254.8
1151	9.75	5.0	580	0.077	3.67	2.10	13.3	255.9

Meters Used for Measurement *(Circle)* **YSI Pro Plus** **YSI 556** **Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 19

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate** 79.0 Hz

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) **Duplicate Collected. Sample ID =** DUP-2-140417 @ 1100

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered (Not Filtered)**

0.0 PID

Signature [signature] Date 4/17/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HLM Sample Time 1020 Sample ID **MW-103-140416**

PURGE DATA

Well Condition: Secure [ ] Yes [ ] No Describe Damage no bolts, all replaced and heli-coiled

(Padlock brand and number) Masterlock P493

Depth to Water (from top of well casing) 5.88

Depth to Base of Well ~~21 feet~~ 16.5 feet Height of Water Column 10.62

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 1.8

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type) —

Gallons Purged 7

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/16/14

Sample Location and Depth **MW-103: Screen mid-point at ~~16 feet~~ BGS** 15 feet, 2ft off bottom Time Collected 1020

Tidal Cycle NA [ ] High Tide at — Low Tide at — Weather (*Circle*) **Cloudy Overcast Clear Rain Showers Snow**

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment**

Sample Collected with [ ] Bailer [ ] Pump [ ] Other —

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other —

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) cloudy, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
0910	6.02	0.25	5.59	0.026	96.2	1.03	10.5	314.0
0914	6.00	0.5	5.36	0.032	160	0.82	10.3	313.3
0918	5.97	0.75	5.34	0.031	118	0.69	11.2	316.9
0923	5.95	1.0	5.44	0.032	73.2	0.62	11.4	311.8
0927	—	1.25	5.48	0.032	59.3	0.58	11.7	308.8
0930	6.03	1.5	5.57	0.031	55.4	0.54	11.6	304.0
0932	—	2.0	5.59	0.030	41.7	0.51	11.4	303.5 *
0938	6.03	2.5	5.56	0.031	25.0	0.60	11.4	303.8
0943	—	3.0	5.60	0.031	23.4	0.49	11.5	302.9
0947	6.00	3.5	5.62	0.031	18.1	0.49	11.6	302.1
0952	6.01	3.75	5.64	0.031	13.6	0.49	11.6	301.3

Meters Used for Measurement (*Circle*) **YSI Pro Plus** **YSI 556** **Hach 2100Q**

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape **T-** 19

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate** 67.0 Hz

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) None

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

* Flow increased to 500mL/min, timed flow down

Signature [signature] Date 4/16/14 Page 1 of 2

Check if additional information on back [ ]

GeoEngineers

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HMM Sample Time 1020 Sample ID **MW-103-1410416**

FIELD PARAMETERS (cont.)

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm)(±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	TDS (mg/l)	ORP (mV) (±10mV)
0958	—	4.25	5.65	0.030	10.8	0.47	11.6	—	300.9
1003	6.03	5.00	5.66	0.031	8.68	0.46	11.7	—	300.5
1007	—	6.0	5.67	0.030	6.94	0.46	11.6	—	300.0
1012	6.03	6.5	5.69	0.031	6.70	0.61	11.7	—	299.9
1016	5.99	7.0	5.69	0.031	5.46	0.51	11.7	—	299.3
1018	—	7.0	5.68	0.031	4.71	0.55	11.8	—	299.2

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDP/HLM Sample Time 1425 Sample ID **MW-ES-11-140417**

PURGE DATA

Well Condition: Secure [X] Yes [ ] No Describe Damage none, lubricated 3 bolts, needs longer bolts

(Padlock brand and number) master lock P493

Depth to Water (from top of well casing) 14.80

Depth to Base of Well **90 feet** 90.15 Height of Water Column 76.35

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 13

Purge Method Pump (type) **Grundfos** **Peristaltic** Bailer (type) _____

Gallons Purged 2.5

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/17/14 Time Collected 1425

Sample Location and Depth **MW-ES-11: Screen mid-point at 85 feet BGS**

Tidal Cycle NA [X] High Tide at _____ Low Tide at _____ Weather (*Circle*) **Cloudy** **Overcast** **Clear** **Rain** **Showers** **Snow**

Sample type (Groundwater, Product, Other) **GW** **SW** **Soil** **Sediment**

Sample Collected with [ ] Bailer [X] Pump [ ] Other _____

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) clear, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1347	14.82	0	6.29	0.067	2.79	2.36	13.1	259.8
1353	14.85	0.5	6.51	0.058	9.44	1.87	12.7	263.0
1356	14.85	0.6	6.51	0.078	19.2	1.69	12.7	265.1
1402	14.85	0.8	6.53	0.078	16.2	1.83	12.7	264.9
1407	14.85	1.25	6.59	0.078	12.7	1.16	12.6	261.5
* 1411	14.88	1.5	6.61	0.079	8.12	1.08	12.7	259.8
1417	14.88	2.0	6.64	0.079	5.32	1.03	12.8	258.6
1421	-	2.5	6.66	0.079	3.54	0.98	12.9	258.8

Meters Used for Measurement (*Circle*) **YSI Pro Plus** **YSI 556** **Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 19

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 300 **ml/min purge rate** 93.0 Hz * turned up to 95Hz for 4 min/1 min

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) none

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered** **Not Filtered**

Rinsate collected. Sample ID = RIN-2-140417 @ 1523

Signature _____ Date 4/17/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR / HLM Sample Time 1345 Sample ID **WDOT-MW-1-140416**

PURGE DATA

Well Condition: Secure [ ] Yes [X] No Describe Damage Pavl fixed 3 bolts, bolicat, need longer bolts

(Padlock brand and number) Masterlock #493

Depth to Water (from top of well casing) 18.59

Depth to Base of Well **40 feet** 40.24 Height of Water Column 21.65

Well Casing Type/Diameter **2-inch UNK** sch 40 PVC

One Casing Volume (gal.) 3.7

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 57

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
(2)	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/16/14

Sample Location and Depth **WDOT-MW-1: Screen mid-point at ~~34.75~~ feet BGS** @36 ft

Time Collected 1345

Tidal Cycle NA [X] High Tide at Low Tide at

Weather (Circle) **Cloudy Overcast Clear Rain (Showers) Snow**

Sample type (Groundwater, Product, Other) **(GW) SW Soil Sediment**

Sample Collected with [ ] Bailer [ ] Pump [ ] Other

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) ~~Clear~~, Slightly grey

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1235	18.69	0.25	6.64	.150	~~446~~	1.73	12.3	187.8
1236	—	0.5	6.55	0.160	630	0.72	13.1	180.9
1241	18.69	1.0	6.67	0.094	352	0.62	13.8	161.0
1245	—	1.5	6.71	0.164	208	0.60	14.0	148.7
1250	18.70	1.75	6.72	0.117	133	0.54	14.0	137.9
1256	—	2.5	6.72	0.697	67.0	0.62	14.1	121.5
1301	18.69	2.75	6.78	0.163	45.0	0.60	14.1	110.8
1305	—	3.25	6.72	0.164	33.6	0.63	14.1	103.5
1310	18.69	3.75	6.72	0.165	28.2	0.60	14.3	91.4
1314	—	4.0	6.73	0.164	25.5	0.65	14.2	84.8
1320	18.69	4.5	6.73	0.164	22.8	0.59	14.2	72.9

Meters Used for Measurement (Circle) **(YSI Pro Plus) YSI 556 (Hach 2100Q)**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape **T-** 17

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 350 **ml/min purge rate** 103 Hz

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s)

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered (Not Filtered)**

Rinsate collected. Sample ID = RIN-2-140416

Signature [signature] Date 4/16/14 Page 1 of 2

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BPR/HLM Sample Time 1345 Sample ID **WDOT-MW-1-140416**

FIELD PARAMETERS (cont.)

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm)(±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	TDS (mg/l)	ORP (mV) (±10mV)
1327	—	5.0	6.72	0.163	16.8	0.60	14.3	—	61.0
1331	18.67	5.5	6.72	0.163	13.2	0.63	14.3	—	55.8
1335	—	6.0	6.72	0.162	11.3	0.67	14.3	—	51.9
1339	18.69	6.5	6.73	0.162	9.97	0.72	14.3	—	46.8
1341	—	7.0	6.72	0.162	10.0	0.69	14.3	—	43.9

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HLM Sample Time 1210 Sample ID **WDOT-MW-2-140416**

PURGE DATA

Well Condition: Secure [ ] Yes [X] No Describe Damage Monument loose, 1 bolt replaced and heli-coiled

(Padlock brand and number) Masterlock P493

Depth to Water (from top of well casing) 15.42

Depth to Base of Well **40 feet** 40.25 Height of Water Column 24.83

Well Casing Type/Diameter **2-inch UNK** sch 40 PVC

One Casing Volume (gal.) 4.2

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type) _____

Gallons Purged 5

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
(2)	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/16/14

Sample Location and Depth **WDOT-MW-2: Screen mid-point at 34.75 feet BGS** at 33.5ft

Time Collected 1210

Tidal Cycle NA [X] High Tide at _____ Low Tide at _____

Weather (*Circle*) **Cloudy Overcast Clear Rain Showers Snow**

Sample type (Groundwater, Product, Other) **(GW) SW Soil Sediment**

Sample Collected with [ ] Bailer [X] Pump [ ] Other _____

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) Cloudy, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1115	16.15	0	6.16	0.111	>1000	2.10	12.8	286.3
1120	—	0.5	6.57	0.136	210	0.71	13.7	213.6
1124	16.15	0.75	6.63	0.138	73.7	0.66	14.1	202.7
1128	—	1.25	6.66	0.137	39.7	0.64	14.2	191.3
1132	16.11	1.75	6.68	0.136	19.1	0.54	14.2	179.3
1138	16.11	2.25	6.70	0.102	13.4	0.51	14.3	164.4
1142	—	2.5	6.70	0.134	8.99	0.52	14.1	157.2
1146	16.02	3.0	6.70	0.135	7.59	0.51	14.3	151.1
1152	—	3.5	6.70	0.136	5.56	0.49	14.4	143.1
1156	—	4.0	6.71	0.136	4.26	0.46	14.4	136.7
1200	16.04	4.5	6.71	0.137	3.21	0.49	14.4	130.5

Meters Used for Measurement (*Circle*) **(YSI Pro Plus) YSI 556 (Hach 2100Q)**

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape **T-19**

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 300 **ml/min purge rate** 97.0 Hz

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) _____

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered (Not Filtered)**

~~Rinsate collected.~~ Sample ID = RIN-2-140416

Signature _____ Date 4/16/14 Page 1 of 2

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/tmm Sample Time 1210 Sample ID **WDOT-MW-2-140416**

FIELD PARAMETERS (cont.)

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm)(±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	TDS (mg/l)	ORP (mV) (±10mV)
1205	—	4.75	6.71	0.137	2.88	0.48	14.4	—	127.5

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector LML/BMB Sample Time 1145 Sample ID **MW-109-140416**

PURGE DATA

Well Condition: Secure [X] Yes [ ] No Describe Damage NONE, Ant/earwig nest in monument

(Padlock brand and number) Masterlock P4613

Depth to Water (from top of well casing) 18.97

Depth to Base of Well 76 feet 71.97 Height of Water Column 53.00

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 9.01 3 casings = 27.03

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 3.5

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at S. Ramer Ave CB**

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/16/14

Sample Location and Depth **MW-109: Screen mid-point at 69.5 feet BGS**, sampled @ 68ft Time Collected 1145

Tidal Cycle NA [X] High Tide at Low Tide at Weather *(Circle)*

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment** **Cloudy Overcast Clear**

Sample Collected with [ ] Bailer [X] Pump [ ] Other **Rain Showers Snow**

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, NO ODOR

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1118	19.03	1.0	6.22	0.118	116	6.31	12.17	172.4
1123	19.03	1.5	6.21	0.121	45.8	4.05	12.50	160.0
1128	19.03	2.0	6.29	0.123	13.9	3.23	12.84	156.2
1133	19.03	2.5	6.33	0.123	4.55	2.89	12.89	155.8
1138	19.03	3.0	6.34	0.123	2.16	2.77	12.91	154.9
1143	19.02	3.5	6.35	0.123	1.54	2.80	12.91	156.1

Meters Used for Measurement *(Circle)* **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T-39

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 500 **ml/min purge rate** pH

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C** Proj. List

Duplicate Sample Number(s) None

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

Signature Date 4/16/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector LML/BMB Sample Time 1015 Sample ID **MW-111-14-0416**

PURGE DATA

Well Condition: Secure [X] Yes [ ] No Describe Damage broken seal, broken monument, bentonite sanding

(Padlock brand and number) P493 Master lock

Depth to Water (from top of well casing) 25.29

Depth to Base of Well **40 feet** 39.47 Height of Water Column 14.18

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 2.41 3 CASINGS = 7.23

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 5.5 gal

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** South Rainier Ave CB

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/16/14

Sample Location and Depth **MW-111: Screen mid-point at 35 feet BGS** sampled @ 35' Time Collected 1015

Tidal Cycle NA [X] High Tide at Low Tide at Weather (Circle) ~45°F

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment** **Cloudy Overcast Clear**

Sample Collected with [ ] Bailer [X] Pump [ ] Other **Rain Showers Snow**

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODOR FREE

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
0947	25.35	0.5	6.29	0.080	~~25.35~~ 20.8	2.59	12.89	206.8
0952	25.36	1.0	5.90	0.088	4.43	2.58	13.97	186.3
0957	25.38	1.75	5.80	0.091	3.05	2.48	14.64	167.4
1002	25.38	2.75	5.77	0.089	2.35	2.65	14.76	161.6
1007	25.38	3.75	5.76	0.088	~~2.78~~ 1.68	2.78	14.84	160.3
1013	25.38	4.5	5.76	0.088	1.21	2.80	14.89	161.5

Meters Used for Measurement (Circle) **YSI Pro Plus** **YSI 556** **Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 39

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 500 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers 9 **3 x 40ml VOA; SW8260C** per list

Duplicate Sample Number(s) None

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered** PID = 0ppm

MS/MSD collected w/ same sample name

Signature [signature] Date 4/16/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDE/HLM Sample Time 0955 Sample ID **MW-ES-06-14**0421

PURGE DATA

Well Condition: Secure [X] Yes [ ] No Describe Damage soft bottom

(Padlock brand and number) Masterlock P493

Depth to Water (from top of well casing) 43.28

Depth to Base of Well 56 feet 54.30 to 27 Height of Water Column 11.02

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 1.9

Purge Method Pump (type) **Grundfos** **Peristaltic** Bailer (type)

Gallons Purged 3

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/21/14

Sample Location and Depth **MW-ES-06: Screen mid-point at 51 feet BGS** 51 ft bgs Time Collected 0955

Tidal Cycle NA[X] High Tide at Low Tide at Weather (Circle)

Sample type (Groundwater, Product, Other) **GW** **SW** **Soil** **Sediment** **Cloudy** **Overcast** **Clear**

Sample Collected with [ ] Bailer [X] Pump [ ] Other **Rain** **Showers** **Snow**

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) clear, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
0922	43.32	0	6.21	0.153	21.4	3.45	13.2	251.0
0926	43.32	0.5	6.72	0.157	25.6	3.49	13.9	268.0
0930	43.33	0.75	5.72	0.158	27.1	3.49	15.0	266.5
0934	43.31	1.0	5.93	0.161	19.7	3.48	15.9	254.0
0938	43.33	1.5	6.04	0.160	13.1	3.51	16.3	248.8
0942	43.31	2.0	6.06	0.161	9.45	3.54	16.5	248.0
0946	43.32	2.5	6.06	0.163	6.57	3.54	16.7	247.9
0950	43.32	3.0	6.07	0.163	4.89	3.54	16.8	247.3

Meters Used for Measurement (Circle) **YSI Pro Plus** **YSI 556** **Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 19

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate** @ 150.0 Hz

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) none

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered** **Not Filtered**

PID = 0.6 ppm

Signature [signature] Date 4/21/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project: **Palermo Wellfield** | Job No. **0180-121-09** | Collector PDR/HLM | Sample Time 1040 | Sample ID **MW-ES-05-140421**

PURGE DATA

Well Condition: Secure [X] Yes [ ] No | Describe Damage water above J-plug, penta bolts

(Padlock brand and number) Masterlock P493

Depth to Water (from top of well casing) 42.83

Depth to Base of Well ~~96 feet~~ 95.52 | Height of Water Column 52.69

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 9

Purge Method | Pump (type) **Grundfos Peristaltic** | Bailer (type)

Gallons Purged 2.5

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/21/14

Sample Location and Depth **MW-ES-05: Screen mid-point at ~~91~~ 90 feet BGS** 90ft | Time Collected 1040

Tidal Cycle NA [X] | High Tide at | Low Tide at | Weather *(Circle)* **Cloudy Overcast Clear Rain Showers Snow**

Sample type (Groundwater, Product, Other) **(GW) SW Soil Sediment**

Sample Collected with [ ] Bailer [X] Pump [ ] Other

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) clear, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1007	42.87	0	6.31	0.111	2.70	1.82	13.3	243.1
1011	42.87	0.5	6.13	0.114	2.74	1.51	12.9	251.0
1014	42.87	0.75	6.00	0.114	3.42	1.32	12.9	255.8
1019	42.87	1.0	6.01	0.114	3.42	1.19	13.2	255.8
1023	42.86	1.5	6.11	0.115	2.56	1.10	13.5	250.2
1028	42.87	1.75	6.19	0.115	2.04	1.06	13.7	246.9
1032	42.87	2.0	6.22	0.116	1.87	1.04	14.0	245.3
1036	42.87	2.5	6.27	0.116	1.69	1.02	14.2	243.3

Meters Used for Measurement *(Circle)* **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No | Spectrophotometer **Hach 2100Q** | E-Tape **T-19**

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance | 400 **ml/min purge rate** 135.0 Hz

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) **Duplicate Collected. Sample ID =** DUP-2-140421 @ 1000

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

PID = 0.0 ppm

Signature | Date 4/21/14 | Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HH Sample Time 1040 Sample ID **MW-ES-04-140417**

PURGE DATA

Well Condition: Secure [ ] Yes [ ] No Describe Damage 2 bolts - not replaced

(Padlock brand and number) Masterlock P493

Depth to Water (from top of well casing) 48.11 ft

Depth to Base of Well **60 feet** 59.12 Ft Height of Water Column 11.01

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 5.5

Purge Method Pump (type) **Grundfos Reristaltic** Bailer (type) _____

Gallons Purged 8.5

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
(2)	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/17/14

Sample Location and Depth **MW-ES-04: Screen mid-point at 55 feet BGS** set at 55ft Time Collected 1040

Tidal Cycle NA [X] High Tide at _____ Low Tide at _____ Weather *(Circle)*

Sample type (Groundwater, Product, Other) **(GW)** **SW** **Soil** **Sediment** **(Cloudy)** **Overcast** **Clear**

Sample Collected with [ ] Bailer [X] Pump [ ] Other _____ **(Rain)** **Showers** **Snow**

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other _____

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) cloudy, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
0904	48.45	0.25	6.22	0.144	105	4.17	13.3	222.8
0908	–	0.5	6.28	0.148	58.7	3.77	14.1	220.6
0912	48.42	1.0	6.47	0.155	63.1	3.68	15.8	209.6
0918	–	1.5	6.26	0.157	54.0	3.88	16.6	207.8
0925	48.40	2.0	6.31	0.159	50.9	3.77	17.3	209.7
0930	–	2.5	6.31	0.159	30.8	3.67	17.5	211.8
0936	48.41	2.75	6.31	0.159	23.9	3.46	17.5	214.3
0943	–	3.5	6.33	0.159	19.4	3.23	17.7	218.9
0948	48.41	3.75	6.34	0.159	15.5	3.14	17.6	220.2
0953	–	4.0	6.34	0.159	13.6	3.27	17.7	222.2
0955	48.41	4.25	6.34	0.159	14.2	3.25	17.6	223.5

Meters Used for Measurement *(Circle)* **(YSI Pro Plus)** **YSI 556** **(Hach 2100Q)**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape **T-19**

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 350 ~~500~~ **ml/min purge rate** 161.0 Hz

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) none

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered** **(Not Filtered)**

Signature _____ Date 4/17/14 Page 1 of 2

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/MM Sample Time 1040 Sample ID **MW-ES-04-14-0417**

FIELD PARAMETERS (cont.)

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm)(±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	TDS (mg/l)	ORP (mV) (±10mV)
1000	48.33	4.5	6.35	0.158	11.9	3.13	17.5	—	224.3
* 1005	—	4.75	6.34	0.157	13.7	3.05	17.0	—	226.3
1013	48.28	5.0	6.31	0.153	11.7	3.03	16.3	—	230.2
1015	—	5.25	6.30	0.154	—	2.91	16.6	—	230.1
1022	48.81	6.5	6.38	0.160	16.1	2.82	17.6	—	227.2
1025	48.60	7.0	6.40	0.160	22.0	2.82	17.3	—	228.5
1028	48.43	7.5	6.30	0.155	17.6	2.83	16.5	—	233.2
1030	—	7.75	6.29	0.155	16.4	2.83	16.4	—	234.8
1033	48.41	8.0	6.27	0.157	14.4	2.71	17.0	—	237.3
1036	—	8.25	6.30	0.158	15.4	2.64	17.3	—	237.2

* pump stopped flowing. Turned Hz to 18.0.

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMS/MAL Sample Time 1015 Sample ID **MW-ES-03-[illegible]-140417**

PURGE DATA

Well Condition: Secure [ ] Yes [ ] No Describe Damage MISSING ONE BOLT HAS NONE

(Padlock brand and number) MASTER #1 D-PLUG

Depth to Water (from top of well casing) 47.72

Depth to Base of Well ~~123 feet~~ 124.78 Height of Water Column 77.06

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 13.1, 3 CASINGS = 39.3

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 60.0

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** GARNER AVE SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 04/17/14

Sample Location and Depth **MW-ES-03: Screen mid-point at 118 feet BGS** ✓

Time Collected 1015

Tidal Cycle NA [ ] High Tide at Low Tide at

Weather (*Circle*) **Cloudy Overcast Clear Rain Showers Snow**

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment**

Sample Collected with [ ] Bailer [ ] Pump [ ] Other

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODOR FREE

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
0913	45.05	0.5	7.28	0.114	4.85	22.47	12.56	155.7
0920	48.56	1.0	6.97	0.110	10.9	13.07	12.97	160.6
0925	47.96	1.5	6.79	0.111	46.0	4.24	12.93	158.8
0930	47.96	2.0	6.74	0.111	40.5	3.78	13.11	155.7
0935	47.93	2.5	6.72	0.112	32.9	3.63	13.22	152.1
0940	47.93	3.0	6.71	0.112	22.2	3.54	13.42	149.0
0945	47.94	3.5	6.70	0.111	13.4	3.52	13.54	146.6
0950	48.04	4.0	6.69	0.111	9.76	3.60	13.59	145.3
0955	48.04	4.5	6.69	0.111	7.25	3.61	13.66	144.2
1000	48.00	5.0	6.69	0.111	6.04	3.65	13.71	143.2
1005	47.95	5.5	6.68	0.111	6.07	3.78	13.76	142.7

Meters Used for Measurement (*Circle*) **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 39

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 500 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

Signature Date 4/17/14 Page 1 of 3

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMS/mgl Sample Time 1015 Sample ID **MW-ES-03-14-** 140417

FIELD PARAMETERS (cont.)

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm)(±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	TDS (mg/l)	ORP (mV) (±10mV)
1010	47.95	6.0	6.68	0.111	4.38	3.75	13.80		142.0

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector [illegible] Sample Time 1155 Sample ID **MW-96-15-140417**

PURGE DATA

Well Condition: Secure [ ] Yes [X] No Describe Damage MISSING ONE BOLT

(Padlock brand and number) N/A

Depth to Water (from top of well casing) 25.05

Depth to Base of Well ~~84 feet~~ 77.94 Height of Water Column 52.89

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 8.99 3 CASINGS = 27.0

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type) —

Gallons Purged 5.5

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** RAINIER AVE SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/17/14

Sample Location and Depth **MW-96-15: Screen mid-point at ~~74~~ 73.5 feet BGS** Time Collected 1155

Tidal Cycle NA [X] High Tide at — Low Tide at — Weather (*Circle*) **Cloudy Overcast Clear Rain Showers Snow**

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment**

Sample Collected with [ ] Bailer [X] Pump [ ] Other —

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other —

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1100	25.12	0.5	6.99	0.085	5.71	7.31	12.64	163.8
1105	25.10	1.0	6.46	0.096	95.8	4.89	12.56	153.0
1110	25.10	1.5	6.40	0.100	78.5	4.50	12.69	151.6
1115	25.10	2.0	6.42	0.100	39.6	4.18	12.94	149.6
1120	25.10	2.5	6.43	0.100	24.9	4.06	13.21	150.5
1125	25.10	3.0	6.42	0.100	17.4	4.01	13.31	150.4
1130	25.10	3.5	6.42	0.098	11.7	3.98	13.41	150.5
1135	25.10	4.0	6.42	0.097	8.93	3.89	13.46	150.0
1140	25.10	4.5	6.41	0.097	6.76	3.92	13.48	149.9
1145	25.10	5.0	6.41	0.096	5.23	3.88	13.51	150.8
1150	25.10	5.5	6.41	0.096	4.86	3.84	13.61	150.0

Meters Used for Measurement (*Circle*) **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape **T- 39**

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) none

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

Rinsate collected. Sample ID = MW-1-140417 @ 1215

Signature [signature] Date 4/17/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector LMC/BMB Sample Time 1350 Sample ID **MW-96-16-140416**

PURGE DATA

Well Condition: Secure [X] Yes [ ] No Describe Damage N/A

(Padlock brand and number) Master Lock M1

Depth to Water (from top of well casing) 47.01

Depth to Base of Well **60.5 feet** 60.28 Height of Water Column ~~60.28~~ 13.27

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 2.26 3 casings 6.77

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 3.0

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** RAINIER AVE S

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 04/16/14 ~~51.5 BMP~~ Sampled @ ~~51.5 BMP~~ Time Collected 1350

Sample Location and Depth **MW-96-16: Screen mid-point at 55.5 feet BGS**

Tidal Cycle NA [ ] High Tide at Low Tide at Weather *(Circle)* **Cloudy Overcast Clear Rain Showers Snow**

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment**

Sample Collected with [ ] Bailer [ ] Pump [ ] Other

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, NO ODOR

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1323	47.05	0.5	6.57	0.190	1.85	10.61	13.28	158.5
1328	47.05	1.0	6.39	0.186	2.38	9.50	13.55	156.0
1333	47.06	1.5	6.32	0.182	1.11	10.09	14.93	155.3
1338	47.05	2.0	6.35	0.173	0.40	9.81	15.87	150.6
1343	47.05	2.5	6.32	0.172	0.35	9.90	15.43	152.7
1348	47.05	3.0	6.31	0.171	0.27	9.63	15.39	153.9

Meters Used for Measurement *(Circle)* **YSI Pro Plus** **YSI 556** **Hach 2100Q**

pH/Con./DO Instrument Calibration [✓] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 39

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C** proj list

Duplicate Sample Number(s) None

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered** **Not Filtered**

LNSATE COLLECTED RIN-1- 140416

Signature Date 4/16/14 Page 1 of 1

Check if additional information on back [ ]

GeoEngineers

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector RMB/MW Sample Time 1310 Sample ID **MW-96-17-14** 140415

PURGE DATA

Well Condition: Secure [ ] Yes [ ] No Describe Damage NONE

(Padlock brand and number) MASTER LOCK

Depth to Water (from top of well casing) 47.29

Depth to Base of Well **60.5 feet** Height of Water Column 13.21

Well Casing Type/Diameter **2-inch SCH_40_PVC** WATER ABOVE SCREEN

One Casing Volume (gal.) 2.25

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 15

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** MANIEL SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/15/14

Sample Location and Depth **MW-96-17: Screen mid-point at 50.5 feet BGS** Time Collected 1310

Tidal Cycle NA [ ] High Tide at Low Tide at Weather *(Circle)*

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment** **Cloudy Overcast Clear**

Sample Collected with [ ] Bailer [ ] Pump [ ] Other **Rain Showers Snow**

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing** N/A - DEDICATED PUMP

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1240	—	3.0	6.65	0.090	52.9	15.73	13.16	155.7
1245	—	6.0	6.97	0.088	~~13.87~~ 66.9	13.87	12.94	141.7
1250	—	9.0	6.92	0.085	58.1	13.53	12.67	150.4
1255	—	12.0	6.99	0.085	53.8	14.410	12.91	151.1
1300	—	15.0	7.09	0.085	26.0	13.71	12.62	156.7

Meters Used for Measurement *(Circle)* **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 39

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 0.75 GALLONS/MIN **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) N/A

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered** HAND PUMPED, NO PARAMETER STABILIZATION

~~**Rinsate collected. Sample ID =**~~ N/A

Signature Date 4-15-14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PR/HLN Sample Time 1215 Sample ID **MW-ES-02-14042**

PURGE DATA

Well Condition: Secure [X] Yes [ ] No Describe Damage monument not round, no bolts, needs 1" bolts

(Padlock brand and number) Masterlock P493

Depth to Water (from top of well casing) 52.55

Depth to Base of Well **105 feet** 104.22 Height of Water Column 51.67

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 8.8

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 6.5

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/21/14

Sample Location and Depth **MW-ES-02: Screen mid-point at ~~100~~ feet BGS** 98 Ft Time Collected 1215

Tidal Cycle NA [X] High Tide at Low Tide at Weather *(Circle)*

Cloudy Overcast (Clear) Rain Showers Snow

Sample type (Groundwater, Product, Other) **(GW) SW Soil Sediment**

Sample Collected with [ ] Bailer [X] Pump [ ] Other

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) cloudy, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1111	53.58	0	6.46	0.172	9.12	2.10	13.6	257.8
1115	53.41	0.5	6.43	0.161	13.0	1.85	12.7	259.2
1119	53.41	0.75	5.95	0.166	50.6	2.11	13.0	266.3
1123	53.41	1.25	5.90	0.169	22.0	2.30	13.6	265.8
1127	53.41	1.75	5.97	0.171	14.4	2.29	14.0	260.2
1131	53.35	2.25	6.07	0.171	10.9	2.15	14.1	258.2
1136	53.32	3.0	6.09	0.172	8.32	2.00	14.2	258.5
1142	53.27	3.25	6.10	0.172	8.13	1.91	14.2	259.2
1147	53.23	3.5	6.09	0.172	7.64	1.87	14.2	260.0
1153	53.21	4.0	6.18	0.173	7.54	1.96	14.4	260.8
1157	53.36	4.5	6.11	0.172	9.72	2.00	14.4	260.9

Meters Used for Measurement *(Circle)* **(YSI Pro Plus) YSI 556 (Hach 2100Q)**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape **T-** 19

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 450 **ml/min purge rate** @ 173.0 Hz

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) none

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered (Not Filtered)**

~~**Rinsate collected. Sample ID =** RW-2-140421~~ Rinsate collected after MW-ES-09-14042

PID = 0.0ppm

Signature Date 4/21/14 Page 1 of 2

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HLM Sample Time 1215 Sample ID **MW-ES-02-14-0421**

FIELD PARAMETERS (cont.)

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm)(±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	TDS (mg/l)	ORP (mV) (±10mV)
1201	53.38	5	6.12	0.173	9.50	2.05	14.6	—	261.1
1205	53.34	5.5	6.12	0.174	6.57	2.03	14.8	—	261.1
1207	—	5.75	6.13	0.174	6.43	2.08	14.8	—	261.3
1210	53.35	6.0	6.13	0.174	5.39	2.32	14.8	—	261.5
1212	53.21	6.25	6.12	0.174	4.56	2.13	14.8	—	261.8
1214	53.25	6.5	6.12	0.174	4.73	2.17	14.8	—	262.2

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HLM Sample Time 1015 Sample ID **MW-104A-140418**

PURGE DATA

Well Condition: Secure [N] Yes [ ] No Describe Damage Replaced 3 bolts and redrilled need 3" bolt

(Padlock brand and number) Masterlock

Depth to Water (from top of well casing) 51.92

Depth to Base of Well ~~129 feet~~ 126.05 Height of Water Column 74.13

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 12.6

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type) _____

Gallons Purged 40

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	(0.17)
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/18/14 Time Collected 1015

Sample Location and Depth **MW-104A: Screen mid-point at 124 feet BGS**

Tidal Cycle NA [ ] High Tide at _____ Low Tide at _____ Weather (*Circle*) **Cloudy (Overcast) Clear Rain Showers Snow**

Sample type (Groundwater, Product, Other) **(GW) SW Soil Sediment**

Sample Collected with [ ] Bailer [ ] Pump [ ] Other _____

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other _____

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) clear, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
917	52.26	0.15	6.40	0.093	3.59	2.83	12.0	294.6
921	52.22	0.5	5.53	0.101	3.8	3.21	12.2	285.8
926	52.19	0.75	6.57	0.105	9.84	3.47	12.3	285.1
930	52.20	1.0	6.58	0.106	8.40	3.57	12.4	285.6
934	52.20	1.5	6.60	0.108	19.8	3.55	12.8	283.2
938	52.20	2.0	6.63	0.109	30.1	3.57	12.9	283.1
946	52.20	2.5	6.65	0.113	50.2	3.47	13.2	283.9
949	52.21	3.0	6.68	0.114	39.3	3.42	13.4	284.1
953	52.25	3.5	6.69	0.116	23.0	3.32	13.5	284.5
958	52.26	4.0	6.70	0.117	16.4	3.19	13.7	285.1
1003	52.26	4.5	6.70	0.117	8.91	3.03	13.9	285.3

Meters Used for Measurement (*Circle*) **YSI Pro Plus YSI 556 (Hach 2100Q)**

pH/Con./DO Instrument Calibration [N] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 19

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 300 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) _____

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered (Not Filtered)**

PID = 0.0 ppm 178 Hz for 300 ml/min

Signature _____ Date 4/18/14 Page 1 of 2

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HLM Sample Time 1015 Sample ID **MW-104A-14-**

FIELD PARAMETERS (cont.)

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm)(±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	TDS (mg/l)	ORP (mV) (±10mV)
1007	52.26	5.0	6.71	0.118	5.42	2.86	14.1	—	286.0
1013		5.5	6.70	0.118	4.53	2.68	14.0	—	286.9

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HLM Sample Time 1210 Sample ID **MW-104B-140418**

PURGE DATA

Well Condition: Secure [X] Yes [ ] No Describe Damage Replaced 3 bolts & heli coil needs 3 1" bolts

(Padlock brand and number) Masterlock #493

Depth to Water (from top of well casing) 49.36

Depth to Base of Well ~~75 feet~~ 57Ft Height of Water Column ~~25.64~~ 7.64

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 4.4 1.3

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 9.5

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/18/14

Sample Location and Depth **MW-104B: Screen mid-point at ~~70~~ feet BGS** 53Ft Time Collected 1210

Tidal Cycle NA [N] High Tide at Low Tide at Weather *(Circle)*

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment** **Cloudy Overcast Clear Rain Showers Snow**

Sample Collected with [ ] Bailer [N] Pump [ ] Other

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) cloudy, light brown, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1050	49.97	0.10	7.05	0.079	368	0.88	13.2	288.2
1055	49.94	0.5	7.00	0.082	170	0.68	14.3	284.5
1058	49.98	0.75	7.02	0.089	146	0.58	16.2	280.2
1102	50.00	1.5	7.04	0.092	127	0.52	17.1	278.4
1107	50.00	2.0	7.04	0.092	210	0.52	16.9	279.1
1111	50.00	2.5	7.03	0.092	196	0.52	16.9	279.3
1115	50.03	3.0	7.02	0.093	172	0.52	17.0	279.4
1120	50.03	3.5	7.02	0.093	144	0.54	16.8	280.1
1124	50.04	4.0	7.01	0.093	129	0.58	16.8	281.1
1128	50.05	4.5	7.01	0.093	112	0.57	16.9	281.0
1134	50.05	4.75	7.01	0.093	85.2	0.55	16.9	281.4

Meters Used for Measurement *(Circle)* **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 19

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 380 **ml/min purge rate** @ 167 Hz

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) none

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

PID = 0.0 167 Hz for 380 ml/min

Signature [signature] Date 4/18/14 Page 1 of 2

Check if additional information on back [X]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HLM Sample Time 1210 Sample ID **MW-104B-145**

FIELD PARAMETERS (cont.)

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm)(±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	TDS (mg/l)	ORP (mV) (±10mV)
1139	—	6	7.00	0.093	72.0	0.54	17.0	—	281.3
1142	50.07	6.5	7.01	0.092	56.6	0.54	17.0	—	281.1
1149	50.07	7.0	7.00	0.092	39.2	0.54	17.0	—	280.4
1154	50.07	7.25	7.01	0.092	37.0	0.54	17.0	—	279.8
1155	50.06	7.5	7.00	0.093	32.9	0.54	17.1	—	278.9
1159	50.05	7.75	7.00	0.093	28.4	0.54	17.1	—	278.5
1203	50.05	8.5	7.00	0.093	20.0	0.53	17.1	—	278.4
1206	50.05	9.0	7.00	0.093	19.5	0.53	17.2	—	276.9
1208	50.05	9.25	7.00	0.093	20.8	0.53	17.1	—	276.6

GROUNDWATER SAMPLE COLLECTION FORM

Project: **Palermo Wellfield** Job No. **0180-121-09** Collector DDR/HLM Sample Time 1430 Sample ID **MW-ES-09-140421**

PURGE DATA

Well Condition: Secure [✓] Yes [ ] No Describe Damage water in monument, penta bolts, 1"

(Padlock brand and number) Masterlock P493

Depth to Water (from top of well casing) 1.93 ft from top of 2.13 ft extender

Depth to Base of Well **30 feet** 31.24 Height of Water Column 31.41 ft

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 5.3

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 85

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/21/14

Sample Location and Depth **MW-ES-09: Screen mid-point at 25 feet BGS** at 25ft Time Collected 1430

Tidal Cycle NA [✓] High Tide at Low Tide at Weather *(Circle)*

Sample type (Groundwater, Product, Other) **(GW) SW Soil Sediment** **Cloudy Overcast (Clear)**

Sample Collected with [ ] Bailer [✓] Pump [ ] Other **Rain Showers Snow**

Made of [✓] Stainless Steel [ ] PVC [✓] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) clear yellow w/ red precipitate*, no odor

FIELD PARAMETERS

Time	Depth to Water* (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1316	2.64	0.5	6.48	0.133	—	2.42	12.5	271.0
1320	2.58	1.0	6.45	0.131	58.9	1.22	12.8	271.8
1324	2.56	1.5	6.37	0.130	64.2	1.13	12.9	274.3
1328	2.57	2.0	6.38	0.129	83.6	1.23	13.1	272.4
1332	~~2.54~~	2.5	6.42	0.130	93.7	1.95	13.2	265.1
1336	2.56	3.0	6.45	0.129	85.4	2.16	13.1	261.9
1340	2.56	3.5	6.47	0.130	75.2	2.09	13.1	256.9
1344	2.55	4.0	6.49	0.130	67.5	2.07	13.1	253.9
1348	2.55	4.5	6.48	0.130	54.9	2.02	13.2	250.4
1350	2.56	4.75	6.57	0.130	53.1	2.10	13.2	247.1
1354	2.56	5.25	6.52	0.130	68.1	2.27	13.2	245.0

Meters Used for Measurement *(Circle)* **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [✓] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 19

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 450 **ml/min purge rate** @ 41.0 Hz

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

* measured from top of PVC extender * Red, fluffy precipitate encountered in 4th gallon

Duplicate Sample Number(s)

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered (Not Filtered)**

PID=0.0 ppm

Rinsate collected after this well. ID= RIN-2-140421 @ 1435

Signature [signature] Date 4/21/14 Page 1 of 2

Check if additional information on back [ ]

47.7
4.8
<2.5

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HLM Sample Time 1430 Sample ID **MW-ES-09-14-0421**

FIELD PARAMETERS (cont.)

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm)(±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	TDS (mg/l)	ORP (mV) (±10mV)
1358	2.55	5	6.51	0.130	65.5	2.03	13.3	—	241.6
1402	—	6	6.56	0.130	55.4	2.00	13.3	—	236.5
1406	2.56	6.5	6.53	0.130	53.8	2.20	13.3	—	233.0
1410	2.56	7.0	6.55	0.130	54.5	2.34	13.3	—	229.0
1412	—	7.25	6.54	0.130	49.0	2.33	13.3	—	227.1
1416	2.56	7.5	6.55	0.129	51.1	2.47	13.1	—	222.2
1418	—	8.0	6.56	0.129	51.1	2.45	13.2	—	219.7
1422	2.56	8.5	6.54	0.129	47.7	2.42	13.3	—	217.0

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HLM Sample Time 1210 Sample ID **MW-ES-10-140422**

PURGE DATA

Well Condition: Secure [ ] Yes [ ] No Describe Damage

(Padlock brand and number)

Depth to Water (from top of well casing) 0.23* (-1.9 ft)

Depth to Base of Well **92 feet** 95.80* (93.67) Height of Water Column 95.57

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 16.24

Purge Method Pump (type) **Grundfos** **Peristaltic** Bailer (type)

Gallons Purged 4.7

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** RANGER AVE (S)

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/22/14

Sample Location and Depth **MW-ES-10: Screen mid-point at ~~87~~ feet BGS** 90 ft* (87.87') Time Collected 1210

Tidal Cycle NA [X] High Tide at Low Tide at Weather (Circle)

Cloudy **Overcast** **Clear**

Sample type (Groundwater, Product, Other) **GW** **SW** **Soil** **Sediment** **Rain** **Showers** **Snow**

Sample Collected with [ ] Bailer [X] Pump [ ] Other hail

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) clear, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)*	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1128	0.36		6.96	0.131	1.8	4.06	11.7	213.4
1137	0.44	0.75	6.70	0.130	2.45	4.36	11.4	226.7
1141	"	1.5	6.73	0.130	3.04	4.28	11.4	225.0
1144	0.44	1.75	6.79	0.131	3.17	3.97	11.4	221.0
1149	0.44	2.25	6.85	0.131	2.12	3.63	11.5	218.4
1154	0.44	3.0	6.88	0.131	1.58	3.56	11.5	217.3
1158	0.44	3.5	6.89	0.130	1.10	3.36	11.5	217.0
1202	0.44	3.9	6.90	0.131	0.77	3.25	11.6	217.1
1205	0.44	4.2	6.90	0.130	0.92	3.27	11.6	217.4
1209	0.44	4.7	6.91	0.131	0.56	3.29	11.6	217.5

Meters Used for Measurement (Circle) **YSI Pro Plus** **YSI 556** **Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 19

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate** @ 27 Hz

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

* From top of extended casing @ 2.13' for artesian conditions

Duplicate Sample Number(s)

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered** **Not Filtered**

Rinsate collected. Sample ID = RW-2-140422 @ 1130

Signature Date 4/22/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HLM Sample Time 950 Sample ID MW-4A-140422

PURGE DATA

Well Condition: Secure [Y] Yes [ ] No Describe Damage none

(Padlock brand and number) MASTER

Depth to Water (from top of well casing) 5.28 5.15

Depth to Base of Well ~~114.25 feet~~ 112.40 Height of Water Column 107.25

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 18.23

Purge Method Pump (type) **Grundfos** **Peristaltic** Bailer (type)

Gallons Purged 4.5

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave (S) **N/A**

(Drum identification, sample analysis, sample results, storage location, etc.)

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/22/14

Sample Location and Depth **MW-4A: Screen mid-point at ~~105~~ feet BGS** 104.5 Time Collected 950

Tidal Cycle NA [X] High Tide at Low Tide at Weather (*Circle*)

Cloudy **Overcast** **Clear** **Rain** **Showers** **Snow**

Sample type (Groundwater, Product, Other) **GW** **SW** **Soil** **Sediment**

Sample Collected with [ ] Bailer [X] Pump [ ] Other

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) clear, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
904	5.16	0.25	6.55	0.079	5.08	5.74	11.8	218.3
907	5.18	0.5	6.49	0.080	39.4	5.08	11.7	230.1
910	"	1.0	6.59	0.084	94.1	3.77	12.2	227.1
915	5.19	1.3	6.71	0.085	77.6	3.24	12.2	221.7
919	5.18	1.6	6.83	0.084	38.8	3.16	11.7	218.5
925	5.18	2.24	6.87	0.084	23.3	2.95	11.8	218.1
928	5.17	2.5	6.92	0.084	18.3	2.91	11.7	216.6
932	5.18	3.0	6.96	0.084	14.7	2.86	11.6	214.4
938	5.18	3.5	7.00	0.084	7.14	2.75	11.5	214.8
943	5.18	4.0	7.02	0.084	5.59	2.67	11.5	213.9
947	5.18	4.5	7.00	0.083	4.67	2.68	11.5	213.8

Meters Used for Measurement (*Circle*) **YSI Pro Plus** **YSI 556** **Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 19

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 300 **ml/min purge rate** @ 53 Hz

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) **Duplicate Collected. Sample ID =** DUP-2-140422

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered** **Not Filtered**

PID = 0.0

Signature Date 4/22/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PW/HLM Sample Time 1055 Sample ID MW-4B-~~14~~ 140422

PURGE DATA

Well Condition: Secure [X] Yes [ ] No Describe Damage none

(Padlock brand and number) MASTER

Depth to Water (from top of well casing) 5.28

Depth to Base of Well ~~93.27~~ ~~94.2699966430664 feet~~ Height of Water Column 87.99

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 14.95

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 5

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Palmer Ave (5) **N/A**

(Drum identification, sample analysis, sample results, storage location, etc.)

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/22/14

Sample Location and Depth **MW-4B: Screen mid-point at ~~85~~ feet BGS** 86 Time Collected 1055

Tidal Cycle NA [X] High Tide at Low Tide at Weather (Circle)

Sample type (Groundwater, Product, Other) **(GW) SW Soil Sediment** **Cloudy (Overcast) Clear**

Sample Collected with [ ] Bailer [X] Pump [ ] Other **Rain Showers Snow**

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) clear, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1010	5.30	0.25	7.26	0.085	17.6	3.88	11.6	202.2
1012	5.30	0.5	7.16	0.093	27.3	3.46	11.9	207.1
1015	5.30	1.0	7.09	0.096	29.9	3.18	12.1	212.4
1020	5.29	1.6	7.02	0.098	21.8	2.77	12.4	209.0
1026	5.29	2.25	7.07	0.098	15.5	2.65	12.4	203.0
1031	5.29	2.75	7.09	0.098	13.9	2.51	12.4	199.3
1034	5.29	3.2	7.09	0.097	12.3	2.57	12.1	196.6
1039	5.29	3.75	7.08	0.097	7.27	2.34	12.2	194.3
1043	5.29	4.0	7.09	0.097	5.78	2.81	11.9	193.2
1047	5.29	4.5	7.08	0.097	5.33	2.13	12.1	192.9
1051	5.29	5.0	7.08	0.097	4.48	2.19	12.2	192.1

Meters Used for Measurement (Circle) **YSI Pro Plus** **YSI 556** **Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 19

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 450 **ml/min purge rate @ 55 Hz**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) N/A

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

AD: 0.0

Signature [signature] Date 4/22/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector AMS/MPL Sample Time 1430 Sample ID **MW-93-02-140417**

PURGE DATA

Well Condition: Secure [ ] Yes [ ] No Describe Damage NONE OF MONUMENT - STICK IN WELL AT ~8' BTOC

(Padlock brand and number) MASTERLOCK

Depth to Water (from top of well casing) 4.08

Depth to Base of Well **11 feet** 12.09 Height of Water Column 8.01

Well Casing Type/Diameter **4-inch SCH_40_PVC**

One Casing Volume (gal.) 5.29 3 volumes = 15.90

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 4.5

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** RAINIER AVE SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 04/17/14

Sample Location and Depth **MW-93-02: Screen mid-point at 8.5 feet BGS** 7.5 BTOC Time Collected 1430

Tidal Cycle NA [ ] High Tide at Low Tide at Weather *(Circle)* **Cloudy Overcast Clear Rain Showers Snow**

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment**

Sample Collected with [ ] Bailer [ ] Pump [ ] Other

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [X] Disposable LDPE [ ] Other PERISTALTIC - DISPOSABLE LDPE

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1345	4.37	0.5	6.34	0.096	10.47	2.00	10.56	132.1
1350	4.37	1.0	5.91	0.097	4.52	0.95	10.73	135.3
1355	4.39	1.5	6.03	0.097	4.53	0.82	10.73	121.9
1400	4.37	2.0	6.12	0.097	4.06	1.34	10.72	111.6
1405	4.37	2.5	6.10	0.097	2.01	2.50	10.74	111.3
1410	4.37	3.0	6.19	0.097	2.00	3.33	10.75	120.2
1415	4.37	3.5	6.31	0.096	1.71	4.82	10.73	123.5
1420	4.37	4.0	6.35	0.095	1.62	5.22	10.80	123.7
1425	4.37	4.5	6.37	0.093	1.47	5.32	10.80	124.5

Meters Used for Measurement *(Circle)* **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 59

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 500 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

Signature Date 4/17/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB/CV/MK Sample Time 1110 Sample ID **MW-107-140418**

PURGE DATA

Well Condition: Secure [ ] Yes [ ] No Describe Damage HUNG

(Padlock brand and number) MASTERLOCK P1493

Depth to Water (from top of well casing) 7.86

Depth to Base of Well **35 feet** 37.47 Height of Water Column 29.61

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 5.03 x 3 CASINGS = 15.1

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 2.5

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal BMB **Subdrain at** DIRECTLY INTO LAGOON

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 04/18/14 Time Collected 1110

Sample Location and Depth **MW-107: Screen mid-point at 30 feet BGS**

Tidal Cycle NA [ ] High Tide at Low Tide at Weather *(Circle)*

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment** **Cloudy Overcast Clear Rain Showers Snow**

Sample Collected with [ ] Bailer [ ] Pump [ ] Other

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1048	8.08	0.5	9.03	0.101	40.6	12.40	10.89	37.6
1053	8.08	1.0	8.35	0.103	6.48	9.03	11.21	37.9
1058	8.09	1.5	7.73	0.103	2.73	8.78	11.51	54.7
1103	8.11	2.0	7.69	0.104	1.51	8.66	11.75	50.9
1108	8.11	2.5	7.67	0.104	1.12	8.40	11.71	55.3

Meters Used for Measurement *(Circle)* **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 39

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 450 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

Rinsate collected. Sample ID = RIN-1-140418 @ 1125

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Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB/CM Sample Time 10:05 Sample ID **MW-110-14-** 140416

PURGE DATA

Well Condition: Secure [X] Yes [ ] No Describe Damage NONE

(Padlock brand and number) J-PLUG HAS MASTERLOCK

Depth to Water (from top of well casing) 2.39 ft

Depth to Base of Well ~~40 feet~~ 37.60 ft Height of Water Column 35.21

Well Casing Type/Diameter **2-inch SCH_40_PVC**

One Casing Volume (gal.) 5.99 3 CASINGS = 18 gallons

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 6.0

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** ~~EAPOLA AVE~~ SOUTH DIRECTLY IN LAGOON BMB

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/16/14

Sample Location and Depth **MW-110: Screen mid-point at 35 feet BGS** 34 BGS Time Collected 10:05

Tidal Cycle NA [X] High Tide at Low Tide at Weather (*Circle*)

Sample type (Groundwater, Product, Other) **(GW) SW Soil Sediment** **Cloudy Overcast (Clear)**

Sample Collected with [ ] Bailer [X] Pump [ ] Other **Rain Showers Snow**

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **Pump decon-Alconox wash, distilled rinse; Dedicated tubing**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
908	2.52	0.5	9.68	0.097	39.0	18.65	11.42	116.9
913		1.0	7.47	0.103	27.7	3.12	11.66	113.2
918	2.49	1.5	7.11	0.103	14.9	1.72	12.00	30.8
923	2.49	2.0	7.02	0.104	6.38	1.27	12.12	-0.3
928	2.48	2.5	7.17	0.104	3.48	0.95	12.05	-29.3
933	2.48	3.0	7.15	0.105	1.93	0.63	12.19	-35.4
938	2.49	3.5	7.03	0.104	1.43	0.51	12.28	-45.6
943	2.49	4.0	7.69	0.104	1.07	0.56	12.33	-48.5
948	2.49	4.5	7.96	0.105	1.13	0.62	12.38	-55.6
953	2.49	5.0	8.15	0.104	1.02	0.56	12.39	-56.4
958	2.49	5.5	8.18	0.104	0.79	0.54	12.27	-59.2

Meters Used for Measurement (*Circle*) **YSI Pro Plus** **YSI 556** **Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 39

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 500 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

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Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB/CW Sample Time 1005 Sample ID **MW-110-14-** 140418

FIELD PARAMETERS (cont.)

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm)(±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	TDS (mg/l)	ORP (mV) (±10mV)
10:03	2.49	6.0	8.08	0.104	0.76	0.51	12.51		-63.0

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB/LMK Sample Time 1240 Sample ID **PZ-704-14**[4/21/14]

PURGE DATA

Well Condition: Secure [Y] Yes [ ] No Describe Damage MISSING SCREW CAP, REPLACED

(Padlock brand and number) MASTERLOCK

Depth to Water (from top of well casing) 4.33

Depth to Base of Well ~~8 feet~~ 9.41 (SOFT) Height of Water Column 5.08

Well Casing Type/Diameter ~~1-inch StainlessSteel~~ 1.25

One Casing Volume (gal.) ~~0.21, 3 CASINGS = 0.66 GAL~~ 0.33

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 1.25

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** KRAMER AVE SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6
1.25			0.064

SAMPLING DATA

Date Collected (mo/dy/yr) 4/21/14

Sample Location and Depth **PZ-704: Screen mid-point at 6.25 feet BGS**

Time Collected 1240

Tidal Cycle NA [Y] High Tide at Low Tide at

Weather *(Circle)* **Cloudy Overcast Clear**

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment**

Rain Showers Snow

Sample Collected with [ ] Bailer [Y] Pump [ ] Other

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [Y] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLOUDY, SLIGHT SULFUR ODOR

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1225	5.20	0.25	7.45	0.144	950	1.73	10.45	-124.0
1230	5.00	0.75	4.86	0.105	>1000	0.73	10.68	26.5
1235	5.00	1.25	5.31	0.098	>1000	0.36	10.58	17.0

Meters Used for Measurement *(Circle)* **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [Y] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 16-1

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

Signature [signature] Date 4/21/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB/LMC Sample Time 1200 Sample ID **PZ-709-14-**140421

PURGE DATA

Well Condition: Secure [X] Yes [ ] No Describe Damage MUK

(Padlock brand and number) MASTERLOCK

Depth to Water (from top of well casing) 2.83

Depth to Base of Well ~~8 feet~~ 6.68 (50FT) Height of Water Column 3.85

Well Casing Type/Diameter 1.25 ~~1-inch Stainless Steel~~

One Casing Volume (gal.) ~~0.17, 3 CASINGS = 0.5 BMB~~ 0.25

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 0.25

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** FAIRVIEW AVE SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

1.25 0.064

SAMPLING DATA

Date Collected (mo/dy/yr) 4/21/14

Sample Location and Depth **PZ-709: Screen mid-point at 6.25 feet BGS** Time Collected 1200

Tidal Cycle NA [X] High Tide at Low Tide at Weather (*Circle*)

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment** **Cloudy Overcast Clear**

Sample Collected with [ ] Bailer [X] Pump [ ] Other **Rain Showers Snow**

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [X] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) BLACK, SULFUR ODOR

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1155 ~~DMS~~	5.57	0.25	9.09	0.065	~~1000~~ 357 BMB	8.14	11.46	-30.3

Meters Used for Measurement (*Circle*) **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape **T-** 16-1

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance NOT MEASURED **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered** POOR RECHARGE, THREE SETS OF MEASURES NOT TAKEN. ONE-1 ONE VOA FILLED @ 1200. WELL RECHARGED, TWO VOAS FILLED @ 1320

Signature Date 4/21/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector RMB/LML Sample Time 1125 Sample ID **PZ-715-14-** 140421

PURGE DATA

Well Condition: Secure [ ] Yes [ ] No Describe Damage None

(Padlock brand and number) MASTERLOCK

Depth to Water (from top of well casing) 3.90 TOC

Depth to Base of Well ~~8 feet~~ 9.68 Height of Water Column AND 5.78

Well Casing Type/Diameter 1-inch StainlessSteel 1.25 INCH

One Casing Volume (gal.) 0.15, 3 CASINGS = 0.53 3 CVS 0.37

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 1.25

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** KANNEL AVE SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

1.25 0.064

SAMPLING DATA

Date Collected (mo/dy/yr) 4/21/14

Sample Location and Depth **PZ-715: Screen mid-point at 6.25 feet BGS**

Time Collected 1125

Tidal Cycle NA [ ] High Tide at Low Tide at

Weather (*Circle*) **Cloudy Overcast Clear Rain Showers Snow**

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment**

Sample Collected with [ ] Bailer [ ] Pump [ ] Other

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLOUDY, SULFUR ODOR

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1112	6.72	0.25	6.92	0.149	71000	2.46	11.79	-53.9
1117	6.69	0.75	6.87	0.45	71000	8.35	12.36	-56.6
1122	6.61	1.25	6.83	0.40	560	8.77	12.23	-52.4

Meters Used for Measurement (*Circle*) **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T-16-1

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 300 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered** INTERMITTANT FLOW

Signature [signature] Date 4/21/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB/CV Sample Time 1330 Sample ID **PZ-719-14-** 140418

PURGE DATA

Well Condition: Secure [ ] Yes [ ] No Describe Damage ~~MISSING BOLT~~ BMB NONE

(Padlock brand and number) 3 PLUG HAS MASTERLOCK

Depth to Water (from top of well casing) 1.80

Depth to Base of Well **10.5 feet** 9.5 Height of Water Column 7.7

Well Casing Type/Diameter **0.5-inch SCH_40_PVC**

One Casing Volume (gal.) 0.116 3 CASINGS = 0.35 GALLONS

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 4.0 (~3 CASING VOLUMES)

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** FAIRVIEW SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/18/14 Time Collected 1330

Sample Location and Depth **PZ-719: Screen mid-point at 8.5 feet BGS**

Tidal Cycle NA [ ] High Tide at Low Tide at Weather (*Circle*) **Cloudy Overcast Clear Rain Showers Snow**

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment**

Sample Collected with [ ] Bailer [ ] Pump [ ] Other

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1250	—	0.5	9.08	0.101	2.94	1.22	13.16	22.3
1255	—	1.0	8.16	0.100	0.89	1.08	12.11	-3.3
1300	—	1.5	7.65	0.099	0.38	0.52	12.01	-29.9
1305	—	2.0	7.63	0.096	0.39	0.39	11.95	-40.7
1310	—	2.5	8.04	0.098	0.35	0.30	12.05	-39.5
1315	—	3.0	7.01	0.097	0.43	0.30	11.88	-50.4
1320	—	3.5	6.78	0.097	0.79	0.23	11.84	-52.7
1325	—	4.0	7.27	0.097	0.22	0.20	11.80	-53.9

Meters Used for Measurement (*Circle*) **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T-16-1

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 350 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

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Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB/CV Sample Time 1420 Sample ID **PZ-720-140418**

PURGE DATA

Well Condition: Secure [ ] Yes [X] No Describe Damage NONE

(Padlock brand and number) 3 PLUG HAS MASTERLOCK

Depth to Water (from top of well casing) 2.70

Depth to Base of Well ~~10.5 feet~~ 9.35 Height of Water Column 6.65

Well Casing Type/Diameter **0.5-inch SCH_40_PVC**

One Casing Volume (gal.) 0.10, 3 CASINGS = 0.3 GALLONS

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 3.5 (7 3 CASING VOLUMES)

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** RAINIER AVE SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/18/14

Sample Location and Depth **PZ-720: Screen mid-point at ~~8.5 feet BGS~~** 8' BGS

Time Collected 1420

Tidal Cycle NA [X] High Tide at Low Tide at

Weather (*Circle*) **Cloudy Overcast (Clear) Rain Showers Snow**

Sample type (Groundwater, Product, Other) **(GW) SW Soil Sediment**

Sample Collected with [ ] Bailer [X] Pump [ ] Other

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [X] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1348	—	0.5	8.59	0.064	6.07	1.76	11.93	31.4
1353	—	1.0	7.15	0.063	0.70	1.58	11.59	38.8
1358	—	1.5	7.39	0.062	0.55	1.50	11.63	44.2
1403	—	2.0	7.55	0.063	0.40	1.45	11.64	54.8
1408	—	2.5	7.37	0.062	0.37	1.45	11.68	61.4
1413	—	3.0	7.20	0.063	0.40	1.42	11.55	55.1
1418	—	3.5	6.97	0.062	0.30	1.48	11.50	57.6

Meters Used for Measurement (*Circle*) **YSI Pro Plus (YSI 556) Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 16-1

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 350 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered (Not Filtered)**

Signature Date 4/18/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project: **Palermo Wellfield** Job No. **0180-121-09** Collector BMB Sample Time 1010 Sample ID **PZ-721-14-140422**

PURGE DATA

Well Condition: Secure [ ] Yes [X] No Describe Damage NONE BMB SLIP CAP INSTEAD OF J PLUG

(Padlock brand and number) ~~BMB 2 PLUG HAS A PADLOCK BMB~~ NONE

Depth to Water (from top of well casing) 2.58

Depth to Base of Well ~~10.5 feet~~ 9.04 Height of Water Column 6.46

Well Casing Type/Diameter **0.5-inch SCH_40_PVC**

One Casing Volume (gal.) 0.10 , 3 CASINGS = 0.30

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 2.75

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** RAINIER AVE SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/22/14

Sample Location and Depth **PZ-721: Screen mid-point at ~~8.5 feet BGS~~** 8' BTOC Time Collected 1010

Tidal Cycle NA [X] High Tide at Low Tide at Weather *(Circle)*

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment** **Cloudy Overcast Clear**

Sample Collected with [ ] Bailer [X] Pump [ ] Other **Rain Showers Snow**

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [X] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
0943	—	0.25	6.53	0.088	1.25	3.48	12.43	78.8
0948	—	0.75	5.91	0.090	0.77	0.98	12.31	89.9
0953	—	1.25	5.94	0.091	0.77	0.59	12.28	85.8
0958	—	1.75	6.10	0.091	0.44	0.43	12.51	78.6
1003	—	2.25	6.11	0.092	0.37	0.42	12.55	78.3
1008	—	2.75	6.10	0.092	0.31	0.41	12.50	82.2

0953 BMB — 0958 BMB

Meters Used for Measurement *(Circle)* **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T-16-1

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 500 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) **Duplicate Collected. Sample ID =** DUP-1-140422

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

T-16-1 PROBE DOESNT FIT IN 0.5 INCH CASING W/ TUBING

Signature [signature] Date 4/22/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB Sample Time 0925 Sample ID **PZ-722-14** 140422

PURGE DATA

Well Condition: Secure [ ] Yes [ ] No Describe Damage NONE, BMB BOLTS ARE STRIPPED, WELL CASING LOOSE

(Padlock brand and number) BMB 3DRUG HAS MASTERLOCK

Depth to Water (from top of well casing) -0.05 BMB -1.02

Depth to Base of Well ~~10.5 feet~~ 9.58 Height of Water Column 10.6

Well Casing Type/Diameter **0.5-inch SCH_40_PVC**

One Casing Volume (gal.) 0.110, 3 CASINGS = 0.48

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 2.25

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** RAINIER AVE SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/22/14

Sample Location and Depth **PZ-722: Screen mid-point at 8.5 feet BGS** Time Collected 0925

Tidal Cycle NA[ ] High Tide at Low Tide at Weather *(Circle)*

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment** **Cloudy Overcast Clear Rain Showers Snow**

Sample Collected with [ ] Bailer [ ] Pump [ ] Other

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
0900	—	0.25	7.14	0.112	20.1	15.50	12.80	40.8
0905	—	0.75	6.19	0.109	4.90	4.53	12.51	604.0
0910	—	1.25	6.82	0.109	3.45	3.61	12.96	33.9
0915	—	1.75	6.89	0.109	2.52	3.49	12.76	33.4
0920	—	2.25	6.88	0.109	1.75	3.41	12.54	34.6

Meters Used for Measurement *(Circle)* **YSI Pro Plus** **YSI 556** **Hach 2100Q**

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T-16-1

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) 2-04 BMB NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered** **Not Filtered** -1.02

DTW = ~~3.01~~ BELOW TOP OF EXTENSION. EXTENSION IS 3.06 LONG. DTW = -0.05 BMB ABOVE TOP OF CASING (ATOC). T-16-1 PROBE DOESNT FIT IN EXTENSION W/ TUBING

Signature Date 4-22-14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB/HCM Sample Time 1015 Sample ID **PZ-723-14** 140423

PURGE DATA

Well Condition: Secure [ ] Yes [X] No Describe Damage NONE

(Padlock brand and number) MASTERLOCK ON J-PLUG

Depth to Water (from top of well casing) 2.03

Depth to Base of Well ~~10.5 feet~~ 9.08 Height of Water Column 7.05

Well Casing Type/Diameter **0.5-inch SCH_40_PVC**

One Casing Volume (gal.) 0.11, 3 CASINGS = 0.32

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 4.75

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at RAINIER AVE SOUTH**

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/23/14

Sample Location and Depth **PZ-723: Screen mid-point at 8.5 feet BGS** Time Collected 1015

Tidal Cycle NA [X] High Tide at Low Tide at Weather *(Circle)*

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment** **Cloudy Overcast Clear**

Sample Collected with [ ] Bailer [X] Pump [ ] Other **Rain Showers Snow**

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [X] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
0923	—	0.25	6.89	0.003	108	3.12	9.8	207.5
0928	—	0.75	5.53	0.065	53.1	1.82	9.8	228.8
0933	—	1.25	5.82	0.064	55.9	1.49	9.8	210.4
0938	—	1.75	5.91	0.064	55.0	1.36	9.8	196.4
0943	—	2.25	5.96	0.064	41.3	1.29	9.8	187.5
0948	—	2.75	5.99	0.064	34.6	1.24	9.8	181.8
0953	—	3.25	5.99	0.064	28.2	1.20	9.8	178.2
0958	—	3.75	6.00	0.064	20.3	1.18	9.8	174.6
1003	—	4.25	6.01	0.064	17.4	1.17	9.8	171.6
1008	—	4.75	6.01	0.064	14.2	1.14	9.8	169.9
~~1013~~	—	~~5.25~~	MMB					

Meters Used for Measurement *(Circle)* **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T-1C-1

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered** T-1C-1 PROBE WONT FIT IN 0.5" CASING W/ TUBING

Signature Date 4/23/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB Sample Time 1115 Sample ID **PZ-724-[illegible]-042222**

PURGE DATA

Well Condition: Secure [ ] Yes [N] No Describe Damage NONE

(Padlock brand and number) T BMB BMB) PLUG HAS MASTERLOCK

Depth to Water (from top of well casing) 0.88 0.88

Depth to Base of Well BMB **10.5 feet** 9.38 Height of Water Column 8.5

Well Casing Type/Diameter **0.5-inch SCH_40_PVC**

One Casing Volume (gal.) 0.13, 3 CASINGS = 0.38

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 3.25

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at RAINIER AVE SOUTH**

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/22/22 Time Collected 1115

Sample Location and Depth **PZ-724: Screen mid-point at 8.5 feet BGS**

Tidal Cycle NA N High Tide at Low Tide at

Weather (*Circle*) **Cloudy Overcast (Clear) Rain Showers Snow**

Sample type (Groundwater, Product, Other) (GW) **SW Soil Sediment**

Sample Collected with [ ] Bailer [N] Pump [ ] Other

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [N] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1044	—	0.25	6.39	0.090	2.60	5.09	11.64	108.2
1049	—	0.75	6.17	0.090	0.90	1.37	11.48	107.2
1054	—	1.25	5.11	0.089	0.69	1.00	11.22	148.1
1059	—	1.75	5.46	0.089	0.39	0.95	11.16	131.7
1104	—	2.25	5.71	0.089	0.33	0.86	11.16	119.7
1109	—	2.75	5.80	0.089	0.43	0.85	11.12	114.0
1114	—	3.25	5.79	0.089	0.40	0.83	11.10	111.1

Meters Used for Measurement (*Circle*) **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [/] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape **T-16-1**

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered** T-16-1 PROBE CANT FIT DOWN CASING WITH TUBING

Signature Date 4/22/22 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMMS Sample Time 1215 Sample ID **PZ-725-140422**

PURGE DATA

Well Condition: Secure [ ] Yes [X] No Describe Damage NONE

(Padlock brand and number) BMMS 3-PLUG HAS MASTERLOCK

Depth to Water (from top of well casing) 2.04

Depth to Base of Well 10.5 feet 9.73 Height of Water Column 7.69

Well Casing Type/Diameter 0.5-inch SCH_40_PVC

One Casing Volume (gal.) 0.121 3 CASINGS = 0.36

Purge Method Pump (type) Grundfos Peristaltic Bailer (type)

Gallons Purged 3.75

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** LAIMER AVE SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/22/14 Time Collected 1215

Sample Location and Depth **PZ-725: Screen mid-point at 8.5 feet BGS**

Tidal Cycle NA [/] High Tide at Low Tide at

Weather (Circle) **Cloudy Overcast Clear Rain Showers Snow**

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment**

Sample Collected with [ ] Bailer [/] Pump [ ] Other

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [/] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1137	—	0.25	6.97	0.103	2.55	3.26	11.52	35.2
1141	—	0.75	6.75	0.103	0.82	1.05	11.53	12.2
1146	—	1.25	6.84	0.103	0.54	0.59	11.67	12.2
1151	—	1.75	6.92	0.103	0.54	0.34	11.70	-25.7
1156	—	2.25	6.95	0.103	0.42	0.27	11.76	-36.7
1201	—	2.75	6.99	0.103	0.35	0.20	11.79	-40.7
1206	—	3.25	7.03	0.104	0.37	0.21	12.18	-51.5
1211	—	3.75	7.06	0.104	0.31	0.21	12.21	-63.1

Meters Used for Measurement (Circle) **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T-16-1

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 500 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered** ALL PARAMETERS EXCEPT ORP STABLE. PURGED 3 CASINGS

Signature Date 4/22/14 Page 1 of 1

Check if additional information on back [ ]

GeoEngineers

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB/HCM Sample Time 1055 Sample ID **PZ-726-14-140423**

PURGE DATA

Well Condition: Secure [ ] Yes [N] No Describe Damage BOLTS NEED TO BE HELICOILED

(Padlock brand and number) MASTERLOCK ON J PLUG

Depth to Water (from top of well casing) 2.56

Depth to Base of Well ~~10.5 feet~~ 9.52 Height of Water Column 6.96

Well Casing Type/Diameter **0.5-inch SCH_40_PVC**

One Casing Volume (gal.) 0.10, 3 CASINGS = 0.3

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type) _____

Gallons Purged 2.25

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** RAINIER AVE SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/23/14 Time Collected 1055

Sample Location and Depth **PZ-726: Screen mid-point at 8.5 feet BGS**

Tidal Cycle NA [N] High Tide at _____ Low Tide at _____

Weather (*Circle*) **Cloudy Overcast Clear Rain Showers Snow**

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment**

Sample Collected with [ ] Bailer [N] Pump [ ] Other _____

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [N] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1033	—	0.25	6.05	0.079	46.4	2.50	11.4	178.2
1038	—	0.75	6.02	0.079	4.53	1.54	11.4	174.0
1043	—	1.25	6.00	0.079	2.32	1.42	11.3	175.4
1048	—	1.75	5.97	0.079	1.62	1.34	11.4	176.2
1053	—	2.25	5.97	0.078	1.25	1.32	11.3	177.0

Meters Used for Measurement (*Circle*) **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [N] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T-16-1

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 320 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered** T-16-1 PROBE DOESN'T FIT IN 0.5" CASING W/ TUBING

Signature _____ Date 4-23-14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB/HLM Sample Time 1500 Sample ID PZ-728-14-140423

PURGE DATA

Well Condition: Secure [ ] Yes [X] No Describe Damage BOLTS STRIPPED

(Padlock brand and number) MASTERLOCK ON J-PLUG

Depth to Water (from top of well casing) 1.61

Depth to Base of Well ~~10.5 feet~~ 9.11 Height of Water Column 7.3

Well Casing Type/Diameter **0.5-inch SCH_40_PVC**

One Casing Volume (gal.) 0.11, 3 CASINGS = 0.33

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type) _____

Gallons Purged 3.75

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** KAINIER AVE SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/23/14

Sample Location and Depth **PZ-728: Screen mid-point at ~~8.5 feet BGS~~** 8 FEET BTOC Time Collected 1500

Tidal Cycle NA [ ] High Tide at _____ Low Tide at _____ Weather (*Circle*) **Cloudy Overcast Clear Rain Showers Snow**

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment**

Sample Collected with [ ] Bailer [X] Pump [ ] Other _____

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [X] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1422	—	0.25	6.05	0.080	9.45	1.20	11.7	227.0
1427	—	0.75	6.22	0.080	3.78	1.06	11.7	227.0
1432	—	1.25	6.29	0.081	3.08	0.93	11.7	227.3
1437	—	1.75	6.36	0.080	2.85	1.05	11.7	225.7
~~1442~~	~~—~~	~~2.25~~	~~6.37~~	~~0.080~~	~~2.85~~	~~1.07~~	~~11.7~~	~~226.9~~ RPMB
1443	—	2.25	6.39	0.081	8.19	0.88	11.8	224.4
1447	—	2.75	6.42	0.081	2.41	1.06	11.8	222.2
1452	—	3.25	6.45	0.081	2.04	1.02	11.7	221.4
1457	—	3.75	6.45	0.081	2.23	0.83	11.7	220.1

Meters Used for Measurement (*Circle*) **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 16-1

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 300 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered** T-16-1 PROBE DOESN'T FIT IN 0.5" CASING W/ TUBING. DO NOT STABLE, 3 CASINGS PURGED.

Signature _____ Date 4/23/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB/HCM Sample Time 1155 Sample ID **RPZ-730-14-** 140423

PURGE DATA

Well Condition: Secure [ ] Yes [X] No Describe Damage NONE

(Padlock brand and number) J-PLUG ON MASTER LOCK

Depth to Water (from top of well casing) 2.91

Depth to Base of Well ~~9.13000011444092 fee~~ 9.30 BMP Height of Water Column 6.39

Well Casing Type/Diameter **1.5-inch UNK** PVC

One Casing Volume (gal.) 0.58 x 3 CASINGS = 1.73 GALLONS

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type) _____

Gallons Purged 4.25

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6
1.5			0.09

SAMPLING DATA

Date Collected (mo/dy/yr) 4/23/14

Sample Location and Depth **RPZ-730: Screen mid-point at 7.5 feet BGS**

Time Collected 1155

Tidal Cycle NA [X] High Tide at _____ Low Tide at _____

Weather *(Circle)* **Cloudy** **Overcast** **Clear** **Rain** **Showers** **Snow**

Sample type (Groundwater, Product, Other) **GW** **SW** **Soil** **Sediment**

Sample Collected with [ ] Bailer [X] Pump [ ] Other _____

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [X] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1114	4.15	0.25	6.14	0.044	411.9	3.91	11.6	189.7
1119	4.34	0.75	6.19	0.040	95.0	3.82	11.8	188.5
1124	4.34	1.25	6.21	0.036	66.1	3.51	11.8	188.7
1129	4.34	1.75	6.09	0.033	25.4	3.54	11.8	195.8
1134	4.34	2.25	6.09	0.034	14.0	3.00	11.8	195.7
1139	4.32	2.75	6.10	0.033	10.2	2.42	11.8	195.9
1144	4.34	3.25	6.01	0.032	8.92	2.15	11.8	201.4
1149	4.34	3.75	6.19	0.032	6.73	1.98	11.8	193.0
1154	4.34	4.25	6.12	0.032	11.2	1.77	11.8	197.3

Meters Used for Measurement *(Circle)* **YSI Pro Plus** **YSI 556** **Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T-16-1

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 425 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered** **Not Filtered** 7.3 WELL VOLUMES PURGED, TURBIDITY/DO NOT STABLE

Signature _____ Date 4-23-14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB/HLM Sample Time 1400 Sample ID **RPZ-731-14-**4/23

PURGE DATA

Well Condition: Secure [ ] Yes [ ] No Describe Damage NONE

(Padlock brand and number) MASTERLOCK OH 3-RUG

Depth to Water (from top of well casing) 3.81

Depth to Base of Well ~~9.75 feet~~ 9.81 Height of Water Column 6.0

Well Casing Type/Diameter **1.5-inch UNK** PVC

One Casing Volume (gal.) 0.54, 3 CASINGS = 1.63 GALLONS

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 3.25

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/23/14

Sample Location and Depth **RPZ-731: Screen mid-point at 7.5 feet BGS** Time Collected 1400

Tidal Cycle NA[ ] High Tide at Low Tide at Weather *(Circle)*

Sample type (Groundwater, Product, Other) **(GW) SW Soil Sediment** **(Cloudy) Overcast Clear**

Sample Collected with [ ] Bailer [ ] Pump [ ] Other **Rain Showers Snow**

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1325	4.03	0.25	5.90	0.040	10.5	1.93	12.3	223.4
1330	4.02	0.75	5.75	0.040	4.0	1.69	12.6	221.9
1335	4.02	1.25	5.75	0.040	2.29	1.49	12.7	218.1
1340	4.03	1.75	5.74	0.040	2.03	1.40	12.7	218.6
1345	4.03	2.25	5.70	0.039	1.67	1.32	12.6	219.6
1350	4.02	2.75	5.71	0.040	1.14	1.27	12.7	219.4
1355	4.02	3.25	5.69	0.040	1.14	1.25	12.6	220.3

Meters Used for Measurement *(Circle)* **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape **T- 16-1**

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

Signature [signature] Date 4-23-14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB Sample Time 1505 Sample ID **RPZ-732-14-**K040422

PURGE DATA

Well Condition: Secure [ ] Yes [X] No Describe Damage NONE

(Padlock brand and number) 1 J-PLUG HAS MASTERLOCK

Depth to Water (from top of well casing) 4.38

Depth to Base of Well ~~9.63000011444092 feet~~ 9.53 Height of Water Column 5.15

Well Casing Type/Diameter ~~1.5-inch DNK~~ PVC

One Casing Volume (gal.) 0.66 x 3 CASINGS = 2 GALLONS

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 4.75

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** RAINIER AVE SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/22/14 Time Collected 1505

Sample Location and Depth **RPZ-732: Screen mid-point at 7.5 feet BGS**

Tidal Cycle NA [X] High Tide at Low Tide at Weather (*Circle*)

Sample type (Groundwater, Product, Other) **(GW) SW Soil Sediment** **Cloudy Overcast (Clear)**

Sample Collected with [ ] Bailer [X] Pump [ ] Other **Rain Showers Snow**

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [X] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1417	4.38	0.25	6.73	0.137	14.0	15.49	12.40	77.5
1422	5.15	0.75	5.65	0.154	37.3	7.79	11.76	96.9
1427	6.03	1.25	5.48	0.173	8.73	5.40	11.67	116.6
1432	6.17	1.75	5.27	0.190	@ 0.39	5.90	11.95	141.5
1437	6.36	2.25	5.37	0.199	1.47	5.99	12.05	153.5
1442	6.36	2.75	5.34	0.190	1.34	5.08	12.03	156.7
1447	5.49	3.25	5.31	0.195	3.77	5.80	12.01	160.5
1452	5.47	3.75	5.24	0.192	2.72	5.87	11.93	170.7
1457	7.12	4.25	5.27	0.195	1.55	5.42	11.78	177.8
1502	~~7.39~~	4.75	5.30	0.195	1.75	5.53	11.82	176.4

Meters Used for Measurement (*Circle*) **YSI Pro Plus** **YSI 556** **Hach 2100Q**

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape **T-** 16-1

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered** **Not Filtered**

DRAWDOWN 7 10% - WELL RUNNING DRY AT END OF SAMPLING

Signature [signature] Date 4-22-14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HLM Sample Time 1310 Sample ID TW-4-140418

PURGE DATA

Well Condition: Secure [X] Yes [ ] No Describe Damage N/A

(Padlock brand and number) City Wellhouse

Depth to Water (from top of well casing)

Depth to Base of Well Unknown Height of Water Column unknown

Well Casing Type/Diameter N/A

One Casing Volume (gal.) N/A

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged No purging required – production well

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** N/A

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (In.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/18/14

Sample Location and Depth N/A Time Collected 1310

Tidal Cycle NA [X] High Tide at Low Tide at Weather *(Circle)* N/A

Sample type (Groundwater, Product, Other) **(GW)** **SW** **Soil** **Sediment** **Cloudy** **Overcast** **(Clear)**

Sample Collected with [ ] Bailer [X] Pump [ ] Other **Rain** **Showers** **Snow**

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [X] Other pump type unknown

Sampler Decon Procedure N/A

Sample Description (color, free product thickness, odor, turbidity, etc.) clear

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
			N/A		production well			

Meters Used for Measurement *(Circle)* ~~YSI Pro Plus~~ ~~YSI 556~~ N/A

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer ~~Hach 2100Q~~ N/A E-Tape ~~T~~ Not measured

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance N/A **ml/min purge rate**

Analyses, Number and Volume of Sample Containers 3 – 40 mL AG VOA's (HCl)

Duplicate Sample Number(s) N/A

Comments: (Filtered, Not Filtered, Calculations, etc.) ~~Filtered~~ ~~Not Filtered~~ Sampled from valve at pump house

Signature [signature] Date 4/18/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HLM Sample Time 1320 Sample ID TW-9-140418

PURGE DATA

Well Condition: Secure [X] Yes [ ] No Describe Damage N/A

(Padlock brand and number) City Wellhouse

Depth to Water (from top of well casing) N/A

Depth to Base of Well N/A Height of Water Column unknown

Well Casing Type/Diameter unknown

One Casing Volume (gal.) unknown

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged No purging required - production well

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** N/A

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/18/14

Sample Location and Depth N/A Time Collected 1320

Tidal Cycle NA [X] High Tide at Low Tide at Weather (*Circle*) N/A

Sample type (Groundwater, Product, Other) (GW) SW Soil Sediment Cloudy Overcast (Clear)

Sample Collected with [ ] Bailer [X] Pump [ ] Other Rain Showers Snow

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [X] Other pump unknown

Sampler Decon Procedure N/A

Sample Description (color, free product thickness, odor, turbidity, etc.) clear

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
		N/A	production well					

Meters Used for Measurement (*Circle*) **YSI Pro Plus** YSI 556 N/A

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- N/A

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance N/A **ml/min purge rate**

Analyses, Number and Volume of Sample Containers 3 x 40 mL VOA's (HCl)

Duplicate Sample Number(s) N/A

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered** (**Not Filtered**) Sampled from valve on side of pump house.

Signature [signature] Date 4/18/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HLM Sample Time 1400 Sample ID **TW-16-14-** 140418

PURGE DATA

Well Condition: Secure [ ] Yes [X] No Describe Damage N/A

(Padlock brand and number) N/A

Depth to Water (from top of well casing) 10.83

Depth to Base of Well ~~97 feet~~ 98.86 soft Height of Water Column 88.03

Well Casing Type/Diameter **12-inch Steel_6x9**

One Casing Volume (gal.) 829.7

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type) _____

Gallons Purged 3

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** Rainier Ave South

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

12" 9.79

SAMPLING DATA

Date Collected (mo/dy/yr) 4/18/14

Sample Location and Depth ≈ 97'

Time Collected 1400

Tidal Cycle NA~~X~~ High Tide at _____ Low Tide at _____ Weather (*Circle*)

Cloudy Overcast Clear

Rain Showers Snow

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment**

Sample Collected with [ ] Bailer [X] Pump [ ] Other _____

Made of [X] Stainless Steel [ ] PVC [ ] Teflon [X] Disposable LDPE [ ] Other

Sampler Decon Procedure ~~N/A~~ Pump decon - Alconox wash, distilled rinse, dedicated tubing.

Sample Description (color, free product thickness, odor, turbidity, etc.) clear, no odor

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1334	10.82	0.25	7.51	0.062	7.32	1.13	12.6	253.1
1341	10.83	0.5	7.33	0.098	2.42	0.69	12.4	262.9
1343	10.83	1.0	7.32	0.100	1.81	0.64	12.7	263.2
1349	10.82	1.5	7.31	0.099	0.86	0.56	12.4	257.4
1354	10.91	2.0	7.36	0.099	0.74	0.52	12.4	253.4
1358	—	2.5	7.40	0.099	1.08	0.50	12.4	248.7

Meters Used for Measurement (*Circle*) **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [X] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 19

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate** @ 75.0 Hz

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) _____

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

Rinsate collected. Sample ID = RIN-2-140418 @ 1430

PID = 0.0

Signature _____ Date 4/18/14 Page 1 of 1

Check if additional information on back [X]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector PDR/HLM Sample Time 1325 Sample ID ST-1-140418

PURGE DATA

Well Condition: Secure [ ] Yes [ ] No Describe Damage N/A

(Padlock brand and number) City Wellhouse

Depth to Water (from top of well casing) not measured

Depth to Base of Well N/A Height of Water Column N/A

Well Casing Type/Diameter N/A

One Casing Volume (gal.) N/A

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged No purge required - stripper tower

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** N/A

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/18/14

Sample Location and Depth N/A Time Collected 1325

Tidal Cycle NA [/] High Tide at Low Tide at Weather (*Circle*) N/A

Sample type (Groundwater, Product, Other) **GW** **SW** **Soil** **Sediment** **Cloudy** **Overcast** **Clear**

Sample Collected with [ ] Bailer [/] Pump [ ] Other **Rain** **Showers** **Snow**

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure N/A

Sample Description (color, free product thickness, odor, turbidity, etc.) clear

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
			N/A		stripper tower			

Meters Used for Measurement (*Circle*) **YSI Pro Plus** **YSI 556** N/A

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape **T-**

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance N/A **ml/min purge rate**

Analyses, Number and Volume of Sample Containers 3x 40 mL VOA's (HCl)

Duplicate Sample Number(s) N/A

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered** **Not Filtered** Sampled from small spout counter-clockwise from large valve.

Signature [signature] Date 4/18/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMS/LML Sample Time 1310 Sample ID **Seep 1-14-** 041214

PURGE DATA

Well Condition: Secure [ ] Yes [ ] No Describe Damage NONE

(Padlock brand and number)

Depth to Water (from top of well casing) 0.39 (WATER IS ABOVE GROUND SURFACE IN PLUG HEAD)

Depth to Base of Well 2.90 ~~1.50999999046326 fee~~ Height of Water Column ~~1.11~~ BMS 2.51

Well Casing Type/Diameter **0.5-inch StainlessSteel**

One Casing Volume (gal.) ~~0.02, 3 CASINGS = 0.06~~ BMS 0.04

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 1.25

(Remove minimum of 3 well volumes or until field parameters stabilize) BMS

Purge Water Storage/Disposal **Subdrain at** BATTERY AVE SOUTH PARKING INTO PITCH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/21/14

Sample Location and Depth MW SEEP

Time Collected 1310

Tidal Cycle NA [ ] High Tide at Low Tide at Weather (*Circle*)

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment** **Cloudy Overcast Clear**

Sample Collected with [ ] Bailer [ ] Pump [ ] Other **Rain Showers Snow**

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [ ] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1258	1.29	0.25	6.70	0.079	15.1	8.04	11.35	39.5
1303	1.71	0.75	6.36	0.078	0.69	5.49	10.92	63.9
1308	1.72	1.25	6.33	0.076	0.42	5.46	10.82	60.2

Meters Used for Measurement (*Circle*) **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 16-1

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) none

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

Signature Date 4/21/14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

BMB 140921

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB/LML Sample Time 1050 Sample ID **Seep 2-14** ~~MW-14~~

PURGE DATA

Well Condition: Secure [ ] Yes [N] No Describe Damage NONE

(Padlock brand and number)

Depth to Water (from top of well casing) 2.45

Depth to Base of Well ~~1.87000000476837 fee~~ Height of Water Column

Well Casing Type/Diameter **0.5-inch StainlessSteel**

One Casing Volume (gal.)

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 1.25

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** RAINIER AVENUE SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/21/14

Sample Location and Depth MW SCREEN Time Collected 1050

Tidal Cycle NA [N] High Tide at Low Tide at Weather (*Circle*)

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment** **Cloudy Overcast Clear**

Sample Collected with [ ] Bailer [N] Pump [ ] Other **Rain Showers Snow**

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [N] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) SULFUR ODOR, CLOUDY

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
1037	2.30	0.25	6.25	0.145	27.5	8.02	10.74	14.0
1042	2.40	0.75	5.23	0.146	15.6	6.77	10.73	55.0
1047	2.40	1.25	6.14	0.144	10.1	11.59	11.13	10.5

Meters Used for Measurement (*Circle*) **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [N] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape **T- 16-1**

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 300 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

Signature Date 4-21-14 Page 1 of 1

Check if additional information on back [ ]

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB/CML Sample Time 1005 Sample ID **Seep 3-14** 4/21/14

PURGE DATA

Well Condition: Secure [ ] Yes [N] No Describe Damage N/A

(Padlock brand and number) —

Depth to Water (from top of well casing) 2.02

Depth to Base of Well ~~2.93 1.6799999754791 fee~~ Height of Water Column 0.91 BMB

Well Casing Type/Diameter ~~0.5-inch StainlessSteel~~

One Casing Volume (gal.) 0.01, 5 CASINGS = 0.03 BMB 0.04

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type)

Gallons Purged 1.25

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** MAINER AVE SOUTH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/21/14

Sample Location and Depth MW SCREEN ~2.5' BTOC Time Collected 1005

Tidal Cycle NA N High Tide at Low Tide at Weather (*Circle*)

Sample type (Groundwater, Product, Other) **GW SW Soil Sediment** **Cloudy Overcast Clear**

Sample Collected with [ ] Bailer [N] Pump [ ] Other **Rain Showers Snow**

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [N] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) SULFUR ODOR, CLOUDY

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
0955	2.52	0.25	6.09	0.078	398	6.30	10.59	30.6
0958	2.58	0.75	3.50	0.071	71000	6.25	10.73	147.7
1003	2.54	1.25	4.57	0.069	520	10.59	11.09	101.6

Meters Used for Measurement (*Circle*) **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [ ] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape T- 16-1

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 350 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) NONE

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered** INTERMITTENT PUMPING - SEEP ~~HAVE POINT SS~~ PUMPING W/ BUBBLES IN ALL VOAS - COULD NOT ACHIEVE ZERO BUBBLES W/ SEVERAL ATTEMPTS

Signature [signature] Date 4-21-14 Page 1 of 1

Check if additional information on back [ ]

GeoEngineers

GROUNDWATER SAMPLE COLLECTION FORM

Project **Palermo Wellfield** Job No. **0180-121-09** Collector BMB/KML Sample Time 0930 Sample ID **Seep 5-14** 140421

PURGE DATA

Well Condition: Secure [ ] Yes [N] No N/A Describe Damage —

(Padlock brand and number) —

Depth to Water (from top of well casing) SURFACE WATER

Depth to Base of Well — Height of Water Column —

Well Casing Type/Diameter -inch N/A

One Casing Volume (gal.) N/A

Purge Method Pump (type) **Grundfos Peristaltic** Bailer (type) —

Gallons Purged 1.25

(Remove minimum of 3 well volumes or until field parameters stabilize)

Purge Water Storage/Disposal **Subdrain at** ~~LAUREL~~ AVE S BMB Pump IN SEEP DITCH

(Drum identification, sample analysis, sample results, storage location, etc.) **N/A**

Diameter (in.)	OD	ID	Volume Gal./ Linear Ft
0.5	0.84	0.602	0.015
1	1.315	1.029	0.043
2	2.375"	2.067"	0.17
4	4.500"	4.026"	0.66
8	8.625	7.981	2.6

SAMPLING DATA

Date Collected (mo/dy/yr) 4/21/14

Sample Location and Depth SURFACE WATER, MID WATER COLUMN Time Collected 0930

Tidal Cycle NA [N] High Tide at — Low Tide at — Weather *(Circle)*

Sample type (Groundwater, Product, Other) **GW (SW) Soil Sediment** **Cloudy Overcast Clear**

Sample Collected with [ ] Bailer [N] Pump [ ] Other — **Rain Showers Snow**

Made of [ ] Stainless Steel [ ] PVC [ ] Teflon [N] Disposable LDPE [ ] Other

Sampler Decon Procedure **N/A**

Sample Description (color, free product thickness, odor, turbidity, etc.) CLEAR, ODORLESS

FIELD PARAMETERS

Time	Depth to Water (feet)	Purge Volume (gallons)	pH (±1 SU)	Conductivity (mS/cm) (±3%)	Turbidity (NTU) (±10%)	Diss. O2 (mg/l) (±10%)	Temp. (deg C) (±1deg)	ORP (mV) (±10mV)
0915	—	0.25	4.07	0.124	2.33	12.55	11.12	126.8
0920	—	0.75	4.57	0.112	2.62	11.60	11.06	94.1
0925	—	1.25	5.46	0.105	2.61	11.46	11.14	153.7

Meters Used for Measurement *(Circle)* **YSI Pro Plus YSI 556 Hach 2100Q**

pH/Con./DO Instrument Calibration [N] Yes [ ] No Spectrophotometer **Hach 2100Q** E-Tape **T-** 16-1

ADDITIONAL INFORMATION

Samples Composited Overtime, Distance 400 **ml/min purge rate**

Analyses, Number and Volume of Sample Containers **3 x 40ml VOA; SW8260C**

Duplicate Sample Number(s) **Duplicate Collected. Sample ID =** DUP-1-140421

Comments: (Filtered, Not Filtered, Calculations, etc.) **Filtered Not Filtered**

Signature [signature] Date 4-21-14 Page 1 of 1

Check if additional information on back [ ]

APPENDIX B
Analytical Data Table

Table B-1

Groundwater Results

Spring 2014 Groundwater Monitoring Report
Palermo Wellfield Superfund Site
Tumwater, Washington

				1,1-Dichloroethene		1,2-Dichloroethane		cis-1,2-Dichloroethene		Tetrachloroethene		Trans-1,2-Dichloroethene		Trichloroethene		Vinyl Chloride	
Location	Sample ID	Date	Type	(µg/L)		(µg/L)		(µg/L)		(µg/L)		(µg/L)		(µg/L)		(µg/L)	
MW-100	MW-100-140415	4/15/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
MW-101A	MW-101A-140415	4/15/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
MW-101B	MW-101B-140415	4/15/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**2.9**		0.20	U
MW-102	MW-102-140417	4/17/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
MW-102	DUP-2-140417	4/17/2014	Duplicate	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
MW-103	MW-103-140416	4/16/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
MW-104A	MW-104A-140418	4/18/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**3.9**		0.20	U
MW-104B	MW-104B-140418	4/18/2014	Primary	0.20	U	0.20	U	0.20	U	**0.99**		0.20	U	0.20	U	0.20	U
MW-107	MW-107-140418	4/18/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
MW-109	MW-109-140416	4/16/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**15**		0.20	U
MW-110	MW-110-140418	4/18/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
MW-111	MW-111-140416	4/16/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**8.4**		0.20	U
MW-4A	MW-4A-140422	4/22/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
MW-4A	DUP-2-140422	4/22/2014	Duplicate	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
MW-4B	MW-4B-140422	4/22/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
MW-93-02	MW-93-02-140417	4/17/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
MW-96-15	MW-96-15-140417	4/17/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
MW-96-16	MW-96-16-140416	4/16/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
MW-96-17	MW-96-17-140415	4/15/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
MW-ES-02	MW-ES-02-140421	4/21/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**39**		0.20	U
MW-ES-03	MW-ES-03-140417	4/17/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**16**		0.20	U
MW-ES-04	MW-ES-04-140417	4/17/2014	Primary	0.20	U	0.20	U	0.20	U	**34**		0.20	U	**0.31**		0.20	U
MW-ES-05	MW-ES-05-140421	4/21/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**25**		0.20	U
MW-ES-05	DUP-2-140421	4/21/2014	Duplicate	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**25**		0.20	U
MW-ES-06	MW-ES-06-140421	4/21/2014	Primary	0.20	U	0.20	U	0.20	U	**13**		0.20	U	**1.1**		0.20	U
MW-ES-07	MW-ES-07-140415	4/15/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**4.3**		0.20	U
MW-ES-09	MW-ES-09-140421	4/21/2014	Primary	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**110**		1.0	U
MW-ES-10	MW-ES-10-140422	4/22/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**35**		0.20	U
MW-ES-11	MW-ES-11-140417	4/17/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**0.22**		0.20	U
MW-UI	MW-UI-140415	4/15/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**7.9**		0.20	U
PZ-704	PZ-704-140421	4/21/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
PZ-709	PZ-709-140421	4/21/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
PZ-715	PZ-715-140421	4/21/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
PZ-719	PZ-719-140418	4/18/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**1.8**		0.20	U
PZ-720	PZ-720-140418	4/18/2014	Primary	0.20	U	0.20	U	0.20	U	**0.40**		0.20	U	**5.5**		0.20	U
PZ-721	PZ-721-140422	4/22/2014	Primary	0.20	U	0.20	U	**0.28**		0.20	U	0.20	U	**37**		0.20	U
PZ-721	DUP-1-140422	4/22/2014	Duplicate	0.20	U	0.20	U	**0.27**		0.20	U	0.20	U	**37**		0.20	U
PZ-722	PZ-722-140422	4/22/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
PZ-723	PZ-723-140423	4/23/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
PZ-724	PZ-724-140422	4/22/2014	Primary	0.20	U	0.20	U	**0.92**		0.20	U	0.20	U	**29**		0.20	U
PZ-725	PZ-725-140422	4/22/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
PZ-726	PZ-726-140423	4/23/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**3.1**		0.20	U
PZ-728	PZ-728-140423	4/23/2014	Primary	0.20	U	0.20	U	**0.23**		0.20	U	0.20	U	**4.2**		0.20	U
RPZ-730	RPZ-730-140423	4/23/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
RPZ-731	RPZ-731-140423	4/23/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**0.65**		0.20	U
RPZ-732	RPZ-732-140422	4/22/2014	Primary	0.20	U	0.20	U	0.20	U	**0.23**		0.20	U	0.20	U	0.20	U
WDOT-MW-1	WDOT-MW-1-140416	4/16/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
WDOT-MW-2	WDOT-MW-2-140416	4/16/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U

Notes:

µg/L = micrograms per liter

U = not detected at or above the reported detection limit

Bold = detected result above the method detection limit.

Table B-2

Subdrain Results

Spring 2014 Groundwater Monitoring Report

Palermo Wellfield Superfund Site

Tumwater, Washington

Location	Sample ID	Date	Type	1,1-Dichloroethene (µg/L)		1,2-Dichloroethane (µg/L)		cis-1,2-Dichloroethene (µg/L)		Tetrachloroethene (µg/L)		Trans-1,2-Dichloroethene (µg/L)		Trichloroethene (µg/L)		Vinyl Chloride (µg/L)	
Sub-Drain System																	
350	350-140429	4/29/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**1.2**		0.20	U
356	356-140429	4/29/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
357	CO-6-140429	4/29/2014	Primary	0.20	U	0.20	U	0.20	U	**10**		0.20	U	**8.4**		0.20	U
358	CO-4-140429	4/29/2014	Primary	0.20	U	0.20	U	0.20	U	**7.0**		0.20	U	**15**		0.20	U
359	CO-1-140429	4/29/2014	Primary	0.20	U	0.20	U	0.20	U	**4.6**		0.20	U	**12**		0.20	U
360	360-140429	4/29/2014	Primary	0.20	U	0.20	U	0.20	U	**4.0**		0.20	U	**11**		0.20	U
361	361-140429	4/29/2014	Primary	0.20	U	0.20	U	0.20	U	**0.30**		0.20	U	**0.95**		0.20	U
364	364-140429	4/29/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**0.50**		0.20	U
Seeps																	
Seep 1	SEEP-1-140421	4/21/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Seep 2	SEEP-2-140421	4/21/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Seep 3	SEEP-3-140421	4/21/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Seep 5	SEEP-5-140421	4/21/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Seep 5	DUP-1-140421	4/21/2014	Duplicate	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Wellfield Samples																	
ST-1	ST-1-140418	4/18/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
TW-4	TW-4-140418	4/18/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	**0.43**		0.20	U
TW-8	TW-8-140418	4/18/2014	Primary	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U

Notes:

µg/L = micrograms per liter

U = not detected at or above the reported detection limit

Bold = detected result above the method detection limit.

APPENDIX C
Data Validation and Laboratory Analytical Reports

GeoEngineers

1101 Fawcett Avenue, Suite 200, Tacoma, Washington 98402, Telephone: 253.383.4940, Fax: 253.383.4923 www.geoengineers.com

Data Validation Report

Project: Palermo Wellfield Superfund Site
April 2014 Semiannual Groundwater Monitoring

GEI File No: 0180-121-09

Date: July 25, 2014

This report documents the results of a United States Environmental Protection Agency (USEPA)-defined Stage 2B data validation (USEPA Document 540-R-08-005; USEPA, 2009) of analytical data from the analyses of groundwater samples collected as part of the April 2014 Semiannual Groundwater sampling event, and the associated laboratory and field quality control (QC) samples. The samples were obtained from the Palermo Wellfield Superfund Site located in Tumwater, Washington.

OBJECTIVE AND QUALITY CONTROL ELEMENTS

GeoEngineers, Inc. (GeoEngineers) completed the data validation consistent with USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2008) (National Functional Guidelines) to determine if the laboratory analytical results meet the project objectives and are usable for their intended purpose. Data usability was assessed by determining if:

- The samples were analyzed using well-defined and acceptable methods that provide reporting limits below applicable regulatory criteria;
- The precision and accuracy of the data are well-defined and sufficient to provide defensible data; and
- The quality assurance/quality control (QA/QC) procedures utilized by the laboratory meet acceptable industry practices and standards.

In accordance with the Field Sampling Plan (GeoEngineers, 2013), the data validation included review of the following QC elements:

- Data Package Completeness
- Chain-of-Custody Documentation
- Holding Times and Sample Preservation
- Surrogate Recoveries
- Method, Trip, and Rinsate Blanks
- Matrix Spikes/Matrix Spike Duplicates
- Laboratory Control Samples/Laboratory Control Sample Duplicates
- Field Duplicates
- Internal Standards
- Initial Calibrations (ICALs)
- Continuing Calibrations (CCALs)

- Reporting Limits

VALIDATED SAMPLE DELIVERY GROUPS

This data validation included review of the sample delivery groups (SDGs) listed below in Table 1.

TABLE 1: SUMMARY OF VALIDATED SAMPLE DELIVERY GROUPS

Laboratory SDG	Samples Validated
1404-122	MW-101A-140415, MW-101B-140415, MW-ES-07-140415, RIN-2-140415, TB-2-140415
1404-123	MW-96-17-140415, MW-100-140415, MW-UI-140415, RIN-1-140415, TB-1-140415
1404-137	MW-96-16-140416, MW-109-140416, MW-111-140416, RIN-1-140416, TB-1-140416
1404-138	MW-103-140416, WDOT-MW-1-140416, WDOT-MW-2-140416, RIN-2-140416, TB-2-140416
1404-156	MW-93-02-140417, MW-96-15-140417, MW-ES-03-140417, RIN-1-140417, TB-1-140417
1404-157	MW-102-140417, DUP-2-140417, MW-ES-04-140417, MW-ES-11-140417, RIN-2-140417, TB-2-140417
1404-167	MW-107-140418, MW-110-140418, PZ-719-140418, PZ-720-140418, RIN-1-140418, TB-1-140418
1404-168	MW-104A-140418, MW-104B-140418, ST-1-140418, TW-4-140418, TW-8-140418, TW-16-140418, RIN-2-140418, TB-2-140418
1404-179	PZ-704-140421, PZ-709-140421, PZ-715-140421, SEEP-1-140421, SEEP-2-140421, SEEP-3-140421, SEEP-5-140421, DUP-1-140421, TB-1-140421
1404-180	MW-ES-02-140421, MW-ES-05-140421, DUP-2-140421, MW-ES-06-140421, MW-ES-09-140421, RIN-2-140421, TB-2-140421
1404-198	PZ-721-140422, DUP-1-140422, PZ-722-140422, PZ-724-140422, PZ-725-140422, RPZ-732-140422, TB-1-140422
1404-199	MW-4A-140422, DUP-2-140422, MW-4B-140422, MW-ES-10-140422, RIN-2-140422, TB-2-140422
1404-204	PZ-723-140423, PZ-726-140423, PZ-728-140423, RPZ-730-140423, RPZ-731-140423, TB-1-140423

CHEMICAL ANALYSIS PERFORMED

OnSite Environmental, Inc. (OnSite), located in Redmond, Washington, performed laboratory analysis on the groundwater samples using the following method:

- Volatile Organic Compounds (VOCs) by Method SW8260C

DATA VALIDATION SUMMARY

The results for each of the QC elements are summarized below.

Data Package Completeness

OnSite provided all required deliverables for the data validation according to the National Functional Guidelines. The laboratory followed adequate corrective action processes and all identified anomalies were discussed in the relevant laboratory case narrative.

Chain-of-Custody Documentation

Chain-of-custody (COC) forms were provided with the laboratory analytical reports. The COCs were accurate and complete when submitted to the lab with the exceptions identified below.

SDG 1404-122: The laboratory noted that Sample MW-ES-07-140415 was mislabeled as MW-E7-07-140415 on the sample label.

The laboratory noted that Sample MW-101B-140415 had one vial with a bubble. It was determined through professional judgment by Onsite that since the bubble was small, it would likely not affect the sample results. GeoEngineers agrees with this assessment.

SDG 1404-167: The laboratory noted that Sample PZ-719-140418 was mislabeled as PZ-719 on the sample label.

SDG 1404-179: The laboratory noted that Sample TB-1-140421 was received with two containers. The sample was listed with three containers on the COC. The COC was changed to reflect this by OnSite.

Holding Times and Sample Preservation

The sample holding time is defined as the time that elapses between sample collection and sample analysis. Maximum holding time criteria exist for each analysis to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample collection. Established holding times were met for all analyses. The sample coolers arrived at the laboratory at the appropriate temperatures of between two and six degrees Celsius, with exceptions where the temperature was slightly below the lower limit, but above freezing. The out-of-compliance temperatures are detailed below.

SDG 1404-122: The sample cooler temperature recorded at the laboratory was zero degrees Celsius. It was determined through professional judgment that since the samples were not frozen, this temperature should not affect the sample analytical results.

SDG 1404-123: The sample cooler temperature recorded at the laboratory was one degree Celsius. It was determined through professional judgment that since the samples were not frozen, this temperature should not affect the sample analytical results.

SDG 1404-137: The sample cooler temperature recorded at the laboratory was zero degrees Celsius. It was determined through professional judgment that since the samples were not frozen, this temperature should not affect the sample analytical results.

SDG 1404-138: The sample cooler temperature recorded at the laboratory was zero degrees Celsius. It was determined through professional judgment that since the samples were not frozen, this temperature should not affect the sample analytical results.

SDG 1404-156: The sample cooler temperature recorded at the laboratory was zero degrees Celsius. It was determined through professional judgment that since the samples were not frozen, this temperature should not affect the sample analytical results.

SDG 1404-157: The sample cooler temperature recorded at the laboratory was one degree Celsius. It was determined through professional judgment that since the samples were not frozen, this temperature should not affect the sample analytical results.

SDG 1404-167: The sample cooler temperature recorded at the laboratory was zero degrees Celsius. It was determined through professional judgment that since the samples were not frozen, this temperature should not affect the sample analytical results.

SDG 1404-168: The sample cooler temperature recorded at the laboratory was one degree Celsius. It was determined through professional judgment that since the samples were not frozen, this temperature should not affect the sample analytical results.

SDG 1404-179: The sample cooler temperature recorded at the laboratory was one degree Celsius. It was determined through professional judgment that since the samples were not frozen, this temperature should not affect the sample analytical results.

Surrogate Recoveries

A surrogate compound is a compound that is chemically similar to the organic analytes of interest, but unlikely to be found in any environmental sample. Surrogates are used for organic analyses and are added to all samples, standards, and blanks to serve as an accuracy and specificity check of each analysis. The surrogates are added to the samples at a known concentration and percent recoveries are calculated following analysis. All surrogate percent recoveries for field samples were within the laboratory control limits.

Method, Trip, and Rinsate Blanks

Method blanks are analyzed to ensure that laboratory procedures and reagents do not introduce measurable concentrations of the analytes of interest. A method blank was analyzed with each batch of samples, at a frequency of 1 per 20 samples. For all sample batches, method blanks were analyzed at the required frequency. None of the analytes of interest were detected above the reporting limits in any of the method blanks.

Trip blanks are analyzed to provide an indication as to whether volatile compounds have cross-contaminated other like samples within the transportation process to the laboratory. Thirteen trip blanks were collected (one for each cooler): TB-1-140415, TB-2-140415, TB-1-140416, TB-2-140416, TB-1-140417, TB-2-140417, TB-1-140418, TB-2-140418, TB-1-140421, TB-2-140421, TB-1-140422, TB-2-140422, and TB-1-140423. None of the analytes of interest were detected above the reporting limits in any of the trip blanks.

Equipment rinsate blanks are analyzed to provide an indication as to whether field decontamination and sampling procedures effectively prevent cross-contamination in field activities. Ten equipment rinsate blanks were collected: RIN-1-140415, RIN-2-140415, RIN-1-140416, RIN-2-140416, RIN-1-140417, RIN-2-140417, RIN-1-140418, RIN-2-140418, RIN-2-140421, and RIN-2-140422. None of the analytes of interest were detected above the reporting limits in any of the rinsate blanks.

Matrix Spikes/Matrix Spike Duplicates

Since the actual analyte concentration in an environmental sample is not known, the accuracy of a particular analysis is usually inferred by performing a matrix spike (MS) analysis on one sample from the associated batch, known as the parent sample. One aliquot of the sample is analyzed in the normal manner and then a second aliquot of the sample is spiked with a known amount of analyte concentration and analyzed. From these analyses, a percent recovery is calculated. Matrix spike duplicate (MSD) analyses are generally performed for organic analyses as a precision check and analyzed in the same sequence as a matrix spike. Using the result values from the MS and MSD, the relative percent difference (RPD) is calculated. The percent recovery control limits for MS and MSD analyses are specified in the laboratory documents, as are the RPD control limits for MS/MSD sample sets.

One MS/MSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for all analyses and the percent recovery and RPD values were within the proper control limits.

Laboratory Control Samples/Laboratory Control Sample Duplicates

A laboratory control sample (LCS) is a blank sample that is spiked with a known amount of analyte and then analyzed. An LCS is similar to an MS, but without the possibility of matrix interference. Given that matrix interference is not an issue, the LCS/LCSD control limits for accuracy and precision are usually more rigorous than for MS/MSD analyses. Additionally, data qualification based on LCS/LCSD analyses would apply to all samples in the associated batch, instead of just the parent sample. The percent recovery control limits for LCS and LCSD analyses are specified in the laboratory documents, as are the RPD control limits for LCS/LCSD sample sets.

One LCS/LCSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for all analyses and the percent recovery and RPD values were within the proper control limits.

Field Duplicates

In order to assess precision, field duplicate samples were collected and analyzed along with the reviewed sample batches. The duplicate samples were analyzed for the same parameters as the associated parent samples. Precision is determined by calculating the RPD between each pair of samples. If one or more of the sample analytes has a concentration greater than five times the reporting limit for that sample, then the absolute difference is used instead of the RPD. The RPD control limit for water samples is 20 percent.

SDG 1404-157: One field duplicate sample pair, MW-102-140417 and DUP-2-140417, was submitted with this SDG. The precision criteria for all volatile target analytes were met for this sample pair.

SDG 1404-179: One field duplicate sample pair, SEEP-5-140421 and DUP-1-140421, was submitted with this SDG. The precision criteria for all volatile target analytes were met for this sample pair.

SDG 1404-180: One field duplicate sample pair, MW-ES-05-140421 and DUP-2-140421, was submitted with this SDG. The precision criteria for all volatile target analytes were met for this sample pair.

SDG 1404-198: One field duplicate sample pair, PZ-721-140422 and DUP-1-140422, was submitted with this SDG. The precision criteria for all volatile target analytes were met for this sample pair.

SDG 1404-199: One field duplicate sample pair, MW-4A-140422 and DUP-2-140422, was submitted with this SDG. The precision criteria for all volatile target analytes were met for this sample pair.

Internal Standards (Low Resolution Mass Spectrometry)

Like the surrogate, an internal standard is a compound that is chemically similar to the analytes of interest, but unlikely to be found in any environmental sample. Internal standards are used only for the mass spectrometry instrumentation and are usually added to the sample aliquot after extraction has taken place. The internal standard should be analyzed at the beginning of a 12 hour sample run and the control limits for internal standard recoveries are 50 percent to 200 percent of the calibration standard. All internal standard recoveries were within the control limits.

Initial Calibrations (ICALs)

All initial calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. All percent relative standard deviation (%RSD) values were less than +/- 30 percent and all relative response factors (RRF) were greater than 0.05.

Continuing Calibrations (CCALs)

All continuing calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. All percent difference (%D) values were less than +/- 25 percent and all relative response factors (RRF) were greater than 0.05.

Reporting Limits

The contract required quantitation limits (CRQL) were met by the laboratory for all target analytes throughout this sampling event.

OVERALL ASSESSMENT

As was determined by this data validation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the surrogate, LCS/LCSD, and MS/MSD percent recovery values. Precision was acceptable, as demonstrated by the LCS/LCSD, MS/MSD, and field duplicate RPD values.

No analytical results were qualified. All data are acceptable for the intended use.

REFERENCES

U.S. Environmental Protection Agency (USEPA). "Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use," EPA-540-R-08-005. January 2009.

U.S. Environmental Protection Agency (USEPA). "Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review," EPA-540-R-08-01. June 2008.

GeoEngineers, Inc., "Field Sampling Plan, Semiannual Groundwater Monitoring", prepared for Washington State Department of Transportation. February 15, 2013.

GeoEngineers

1101 Fawcett Avenue, Suite 200, Tacoma, Washington 98402, Telephone: 253.383.4940, Fax: 253.383.4923 www.geoengineers.com

Data Validation Report

Project: Palermo Wellfield Superfund Site
April 2014 Subdrain System and Treatment Lagoon Sampling

GEI File No: 0180-121-09

Date: July 25, 2014

This report documents the results of a United States Environmental Protection Agency (USEPA)-defined Stage 2B data validation (USEPA Document 540-R-08-005; USEPA, 2009) of analytical data from the analyses of water samples collected as part of the April 2014 Subdrain System and Treatment Lagoon sampling event, and the associated laboratory and field quality control (QC) samples. The samples were obtained from the Palermo Wellfield Superfund Site located in Tumwater, Washington.

OBJECTIVE AND QUALITY CONTROL ELEMENTS

GeoEngineers, Inc. (GeoEngineers) completed the data validation consistent with USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2008) (National Functional Guidelines) to determine if the laboratory analytical results meet the project objectives and are usable for their intended purpose. Data usability was assessed by determining if:

- The samples were analyzed using well-defined and acceptable methods that provide reporting limits below applicable regulatory criteria;
- The precision and accuracy of the data are well-defined and sufficient to provide defensible data; and
- The quality assurance/quality control (QA/QC) procedures utilized by the laboratory meet acceptable industry practices and standards.

In accordance with the Quality Assurance Project Plan (GeoEngineers, 2013), the data validation included review of the following QC elements:

- Data Package Completeness
- Chain-of-Custody Documentation
- Holding Times and Sample Preservation
- Surrogate Recoveries
- Method, Trip, and Rinsate Blanks
- Matrix Spikes/Matrix Spike Duplicates
- Laboratory Control Samples/Laboratory Control Sample Duplicates
- Field Duplicates
- Internal Standards
- Initial Calibrations (ICALs)
- Continuing Calibrations (CCALs)
- Reporting Limits

VALIDATED SAMPLE DELIVERY GROUPS

This data validation included review of the sample delivery group (SDG) listed below in Table 1.

TABLE 1: SUMMARY OF VALIDATED SAMPLE DELIVERY GROUPS

Laboratory SDG	Samples Validated
1404-255	350-140429, 356-140429, 360-140429, 361-140429, 364-140429, CB-1-140429, CB-2-140429, CB-3-140429, CO-1-140429, CO-2-140429, CO-3-140429, CO-4-140429, CO-5-140429, DUP-1-140429, CO-6-140429, CO-7-140429, CO-8-140429, RIN-1-140429, TB-1-140429

CHEMICAL ANALYSIS PERFORMED

OnSite Environmental, Inc. (OnSite), located in Redmond, Washington, performed laboratory analysis on the water samples using the following method:

- Volatile Organic Compounds (VOCs) by Method SW8260C

DATA VALIDATION SUMMARY

The results for each of the QC elements are summarized below.

Data Package Completeness

OnSite provided all required deliverables for the data validation according to the National Functional Guidelines. The laboratory followed adequate corrective action processes and all identified anomalies were discussed in the relevant laboratory case narrative.

Chain-of-Custody Documentation

Chain-of-custody (COC) forms were provided with the laboratory analytical reports. The COCs were accurate and complete when submitted to the lab.

Holding Times and Sample Preservation

The sample holding time is defined as the time that elapses between sample collection and sample analysis. Maximum holding time criteria exist for each analysis to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample collection. Established holding times were met for all analyses. The sample cooler arrived at the laboratory at the appropriate temperature of between two and six degrees Celsius.

Surrogate Recoveries

A surrogate compound is a compound that is chemically similar to the organic analytes of interest, but unlikely to be found in any environmental sample. Surrogates are used for organic analyses and are added to all samples, standards, and blanks to serve as an accuracy and specificity check of each analysis. The surrogates are added to the samples at a known concentration and percent recoveries are calculated following analysis. All surrogate percent recoveries for field samples were within the laboratory control limits.

Method, Trip, and Rinsate Blanks

Method blanks are analyzed to ensure that laboratory procedures and reagents do not introduce measurable concentrations of the analytes of interest. A method blank was analyzed with each batch of samples, at a frequency of 1 per 20 samples. For all sample batches, method blanks were analyzed at the required frequency. None of the analytes of interest were detected above the reporting limits in any of the method blanks.

Trip blanks are analyzed to provide an indication as to whether volatile compounds have cross-contaminated other like samples within the transportation process to the laboratory. One trip blank, TB-1-140429, was collected. None of the analytes of interest were detected above the reporting limits in the trip blank.

Equipment rinsate blanks are analyzed to provide an indication as to whether field decontamination and sampling procedures effectively prevent cross-contamination in field activities. One equipment rinsate blank, RIN-1-140429, was collected. None of the analytes of interest were detected above the reporting limits in the rinsate blank.

Matrix Spikes/Matrix Spike Duplicates

Since the actual analyte concentration in an environmental sample is not known, the accuracy of a particular analysis is usually inferred by performing a matrix spike (MS) analysis on one sample from the associated batch, known as the parent sample. One aliquot of the sample is analyzed in the normal manner and then a second aliquot of the sample is spiked with a known amount of analyte concentration and analyzed. From these analyses, a percent recovery is calculated. Matrix spike duplicate (MSD) analyses are generally performed for organic analyses as a precision check and analyzed in the same sequence as a matrix spike. Using the result values from the MS and MSD, the relative percent difference (RPD) is calculated. The percent recovery control limits for MS and MSD analyses are specified in the laboratory documents, as are the RPD control limits for MS/MSD sample sets.

One MS/MSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for all analyses and the percent recovery and RPD values were within the proper control limits.

Laboratory Control Samples/Laboratory Control Sample Duplicates

A laboratory control sample (LCS) is a blank sample that is spiked with a known amount of analyte and then analyzed. An LCS is similar to an MS, but without the possibility of matrix interference. Given that matrix interference is not an issue, the LCS/LCSD control limits for accuracy and precision are usually more rigorous than for MS/MSD analyses. Additionally, data qualification based on LCS/LCSD analyses would apply to all samples in the associated batch, instead of just the parent sample. The percent recovery control limits for LCS and LCSD analyses are specified in the laboratory documents, as are the RPD control limits for LCS/LCSD sample sets.

One LCS/LCSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for all analyses and the percent recovery and RPD values were within the proper control limits.

Field Duplicates

In order to assess precision, field duplicate samples were collected and analyzed along with the reviewed sample batches. The duplicate samples were analyzed for the same parameters as the associated parent samples. Precision is determined by calculating the RPD between each pair of samples. If one or

more of the sample analytes has a concentration greater than five times the reporting limit for that sample, then the absolute difference is used instead of the RPD. The RPD control limit for water samples is 20 percent.

SDG 1404-255: One field duplicate sample pair, CO-5-140429 and DUP-1-140429, was submitted with this SDG. The precision criteria for all volatile target analytes were met for this sample pair.

Internal Standards (Low Resolution Mass Spectrometry)

Like the surrogate, an internal standard is a compound that is chemically similar to the analytes of interest, but unlikely to be found in any environmental sample. Internal standards are used only for the mass spectrometry instrumentation and are usually added to the sample aliquot after extraction has taken place. The internal standard should be analyzed at the beginning of a 12 hour sample run and the control limits for internal standard recoveries are 50 percent to 200 percent of the calibration standard. All internal standard recoveries were within the control limits.

Initial Calibrations (ICALs)

All initial calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. All percent relative standard deviation (%RSD) values were less than +/- 30 percent and all relative response factors (RRF) were greater than 0.05.

Continuing Calibrations (CCALs)

All continuing calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. All percent difference (%D) values were less than +/- 25 percent and all relative response factors (RRF) were greater than 0.05.

Reporting Limits

The contract required quantitation limits (CRQL) were met by the laboratory for all target analytes throughout this sampling event.

OVERALL ASSESSMENT

As was determined by this data validation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the surrogate, LCS/LCSD, and MS/MSD percent recovery values. Precision was acceptable, as demonstrated by the LCS/LCSD, MS/MSD, and field duplicate RPD values.

No analytical results were qualified. All data are acceptable for the intended use.

REFERENCES

U.S. Environmental Protection Agency (USEPA). "Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use," EPA-540-R-08-005. January 2009.

U.S. Environmental Protection Agency (USEPA). "Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review," EPA-540-R-08-01. June 2008.

GeoEngineers, Inc., "Quality Assurance Project Plan, Subdrain System and Treatment Lagoon Sampling", prepared for Washington State Department of Transportation. February 15, 2013.

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

April 21, 2014

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 01800-121-09
Laboratory Reference No. 1404-122

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on April 16, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: April 21, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-122
Project: 01800-121-09

Case Narrative

Samples were collected on April 15, 2014 and received by the laboratory on April 16, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: April 21, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-122
Project: 01800-121-09

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-ES-07-140415	04-122-01	Water	4-15-14	4-16-14	
MW-101A-140415	04-122-02	Water	4-15-14	4-16-14	
MW-101B-140415	04-122-03	Water	4-15-14	4-16-14	
RIN-2-140415	04-122-04	Water	4-15-14	4-16-14	
TB-2-140415	04-122-05	Water	4-15-14	4-16-14	

Date of Report: April 21, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-122
Project: 01800-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-ES-07-140415**					
Laboratory ID:	04-122-01					
Vinyl Chloride	ND	0.20	EPA 8260C	4-18-14	4-18-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-18-14	4-18-14	
Trichloroethene	4.3	0.20	EPA 8260C	4-18-14	4-18-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*62-122*				
Toluene-d8	*101*	*70-120*				
4-Bromofluorobenzene	*95*	*71-120*				

Date of Report: April 21, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-122
Project: 01800-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-101A-140415**					
Laboratory ID:	04-122-02					
Vinyl Chloride	ND	0.20	EPA 8260C	4-18-14	4-18-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-18-14	4-18-14	
Trichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: April 21, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-122
Project: 01800-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-101B-140415**					
Laboratory ID:	04-122-03					
Vinyl Chloride	ND	0.20	EPA 8260C	4-18-14	4-18-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-18-14	4-18-14	
Trichloroethene	2.9	0.20	EPA 8260C	4-18-14	4-18-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*91*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: April 21, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-122
Project: 01800-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RIN-2-140415**					
Laboratory ID:	04-122-04					
Vinyl Chloride	ND	0.20	EPA 8260C	4-18-14	4-18-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-18-14	4-18-14	
Trichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*95*	*71-120*				

Date of Report: April 21, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-122
Project: 01800-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TB-2-140415**					
Laboratory ID:	04-122-05					
Vinyl Chloride	ND	0.20	EPA 8260C	4-18-14	4-18-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-18-14	4-18-14	
Trichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: April 21, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-122
Project: 01800-121-09

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0418W1					
Vinyl Chloride	ND	0.20	EPA 8260C	4-18-14	4-18-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-18-14	4-18-14	
Trichloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-18-14	4-18-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*88*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: April 21, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-122
Project: 01800-121-09

VOLATILES by EPA 8260C
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	04-122-02										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	**10.4**	**10.4**	10.0	10.0	ND	104	104	57-133	0	15	
Benzene	**10.2**	**10.5**	10.0	10.0	ND	102	105	78-117	3	15	
Trichloroethene	**9.89**	**9.87**	10.0	10.0	ND	99	99	77-120	0	15	
Toluene	**9.85**	**10.1**	10.0	10.0	ND	99	101	80-115	3	15	
Chlorobenzene	**10.2**	**10.1**	10.0	10.0	ND	102	101	80-122	1	15	
Surrogate:											
Dibromofluoromethane						*86*	*91*	*62-122*			
Toluene-d8						*99*	*100*	*70-120*			
4-Bromofluorobenzene						*94*	*93*	*71-120*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

12

Company: GEI
Project Number: 0180-121-09
Project Name: Palermo
Project Manager: Nick Rohrbach
Sampled by: PDR/HLM

Turnaround Request (in working days)

(Check One)

- ☐ Same Day ☐ 1 Day
- ☐ 2 Days ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 04-122

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C proj list	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
1	MW-ES-07-140415	4/15/14	0935	GW	3					X											
2	MW-101A-140415		1040		9					X											
3	MW-101B-140415		1230		3					X											
4	RIN-2-140415		1300		3					X											
5	TB-2-140415				2					X											

	Signature	Company	Date	Time
Relinquished		~~GEI~~	4/15/14	1400
Received		GEI	4/15/14	1406
Relinquished		GEI	4/16/14	9:45AM
Received		SPEEDY #4	4/16/14	9:45AM
Relinquished		" "	4/16/14	1057AM
Received		GSE	4/16/14	1057
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

MW-101A-140415 for MS/MSD

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 0180-121-09

OnSite Project Number: 04-122

Initiated by: MV

Date Initiated: 4/16/14

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	(Yes)	No	(N/A)	1 2 3 4
1.2 Were the custody seals intact?	(Yes)	No	(N/A)	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	(Yes)	No	(N/A)	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	(Yes)	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	(Yes)	No	Temperature: 0	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	(N/A)		
1.7 How were the samples delivered?	Client	(Courier)	UPS/FedEx	OSE Pickup Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	(Yes)	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	(Yes)	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	(Yes)	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	(No)		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	(Yes)	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	(No)		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	(No)		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	(No)		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	(Yes)	No		1 2 3 4
3.4 Have the samples been correctly preserved?	(Yes)	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and air bubbles?	Yes	(No)	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	(Yes)	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	(No)		1 2 3 4
3.8 Was method 5035A used?	Yes	No	(N/A)	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		(N/A)	1 2 3 4

Explain any discrepancies:

2.4) Sample 1) MW-E7-07-140415 4/15/14 0935 on 1 vial
MW-ES-07-140415 " " on COC *

3.5) Sample 3) MW-101B-140415 1 vial w/ bubble

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

Complete Data Package

- Volatiles by EPA 8260C

Volatiles by EPA 8260C Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418016.d
Acq On : 18 Apr 2014 1:44 pm
Operator :
Sample : 04-122-01b
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 18 13:57:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

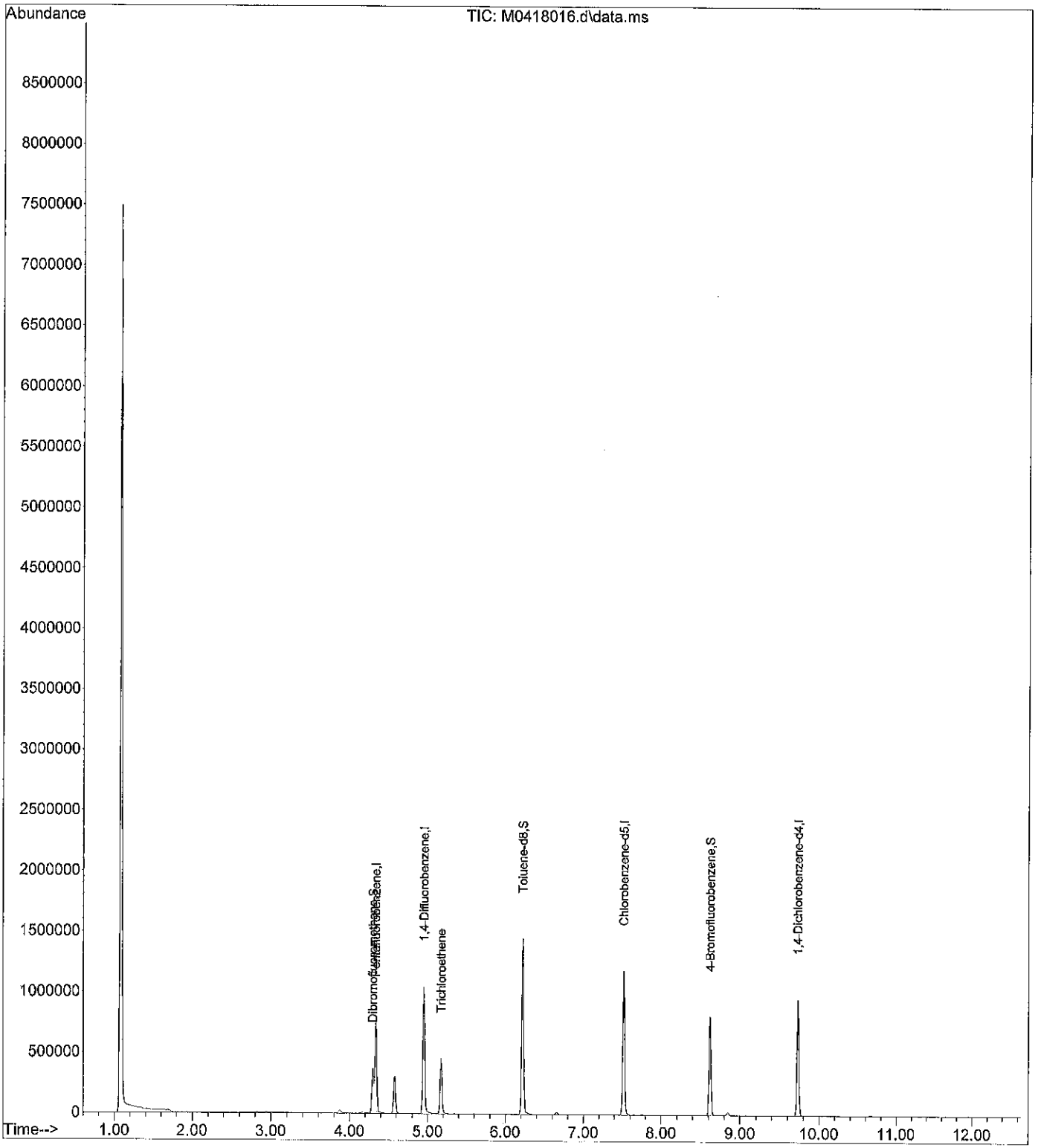
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	475309	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	764109	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	654150	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	264422	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	200991	9.29	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 92.90%			
36) Toluene-d8	6.220	98	905253	10.05	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.50%			
54) 4-Bromofluorobenzene	8.622	95	275004	9.47	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.70%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	144588	4.29	ppb	99

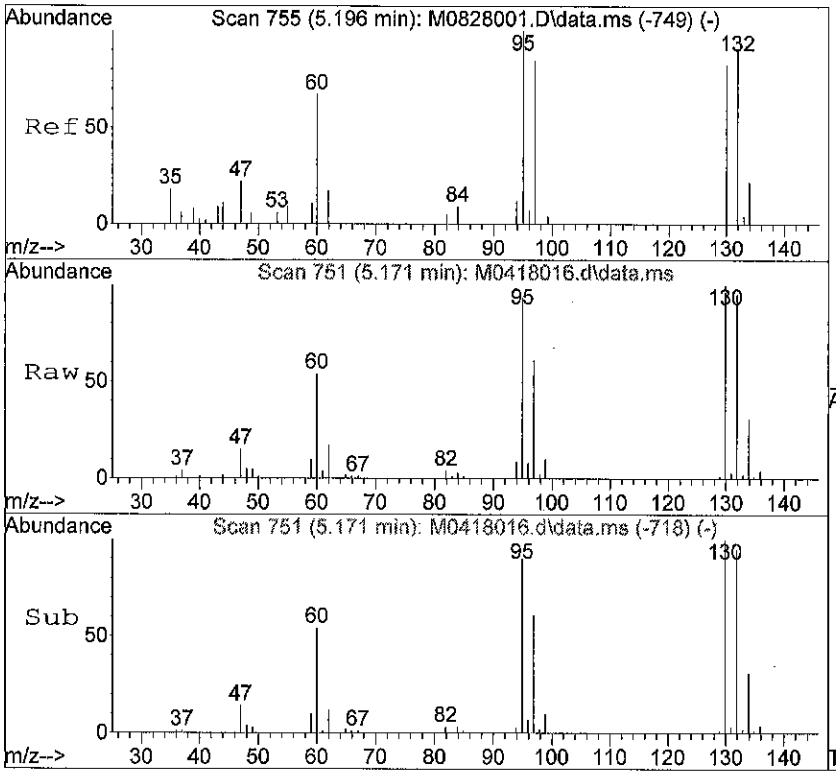
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418016.d
Acq On : 18 Apr 2014 1:44 pm
Operator :
Sample : 04-122-01b
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 18 13:57:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

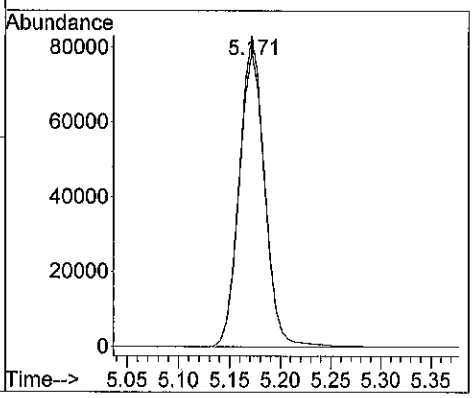




#29
Trichloroethene
Concen: 4.29 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0418016.d
Acq: 18 Apr 2014 1:44 pm

Tgt Ion:130 Resp: 144588

Ion	Ratio	Lower	Upper
130	100		
132	95.5	77.0	115.6



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418007.d
Acq On : 18 Apr 2014 9:34 am
Operator :
Sample : 04-122-02b
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 18 09:51:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

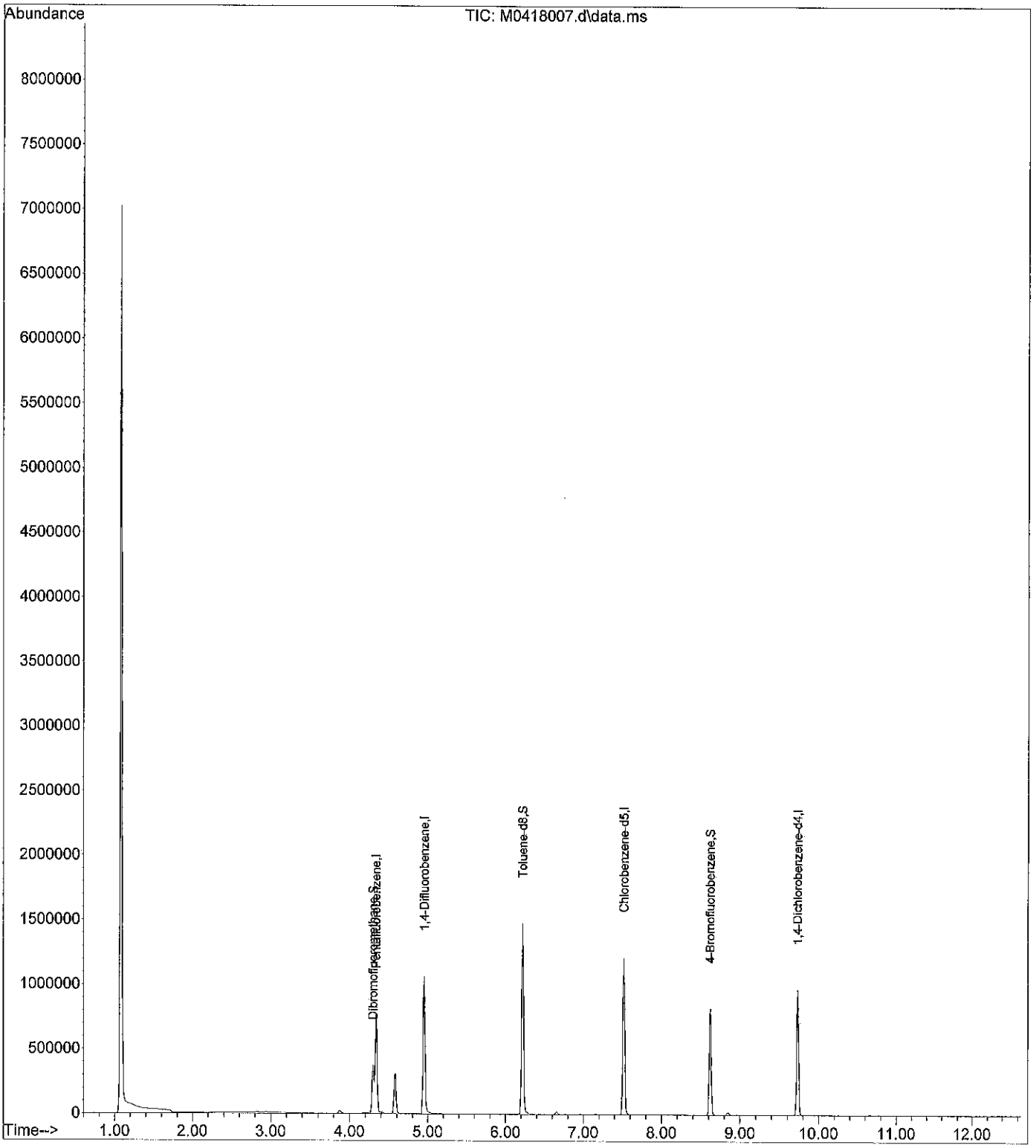
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	494142	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	778189	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	659570	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	268120	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	203202	9.03	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 90.30%			
36) Toluene-d8	6.220	98	913727	9.96	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.60%			
54) 4-Bromofluorobenzene	8.622	95	276294	9.44	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.40%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418007.d
Acq On : 18 Apr 2014 9:34 am
Operator :
Sample : 04-122-02b
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 18 09:51:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418017.d
Acq On : 18 Apr 2014 2:07 pm
Operator :
Sample : 04-122-03b
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 18 14:28:50 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

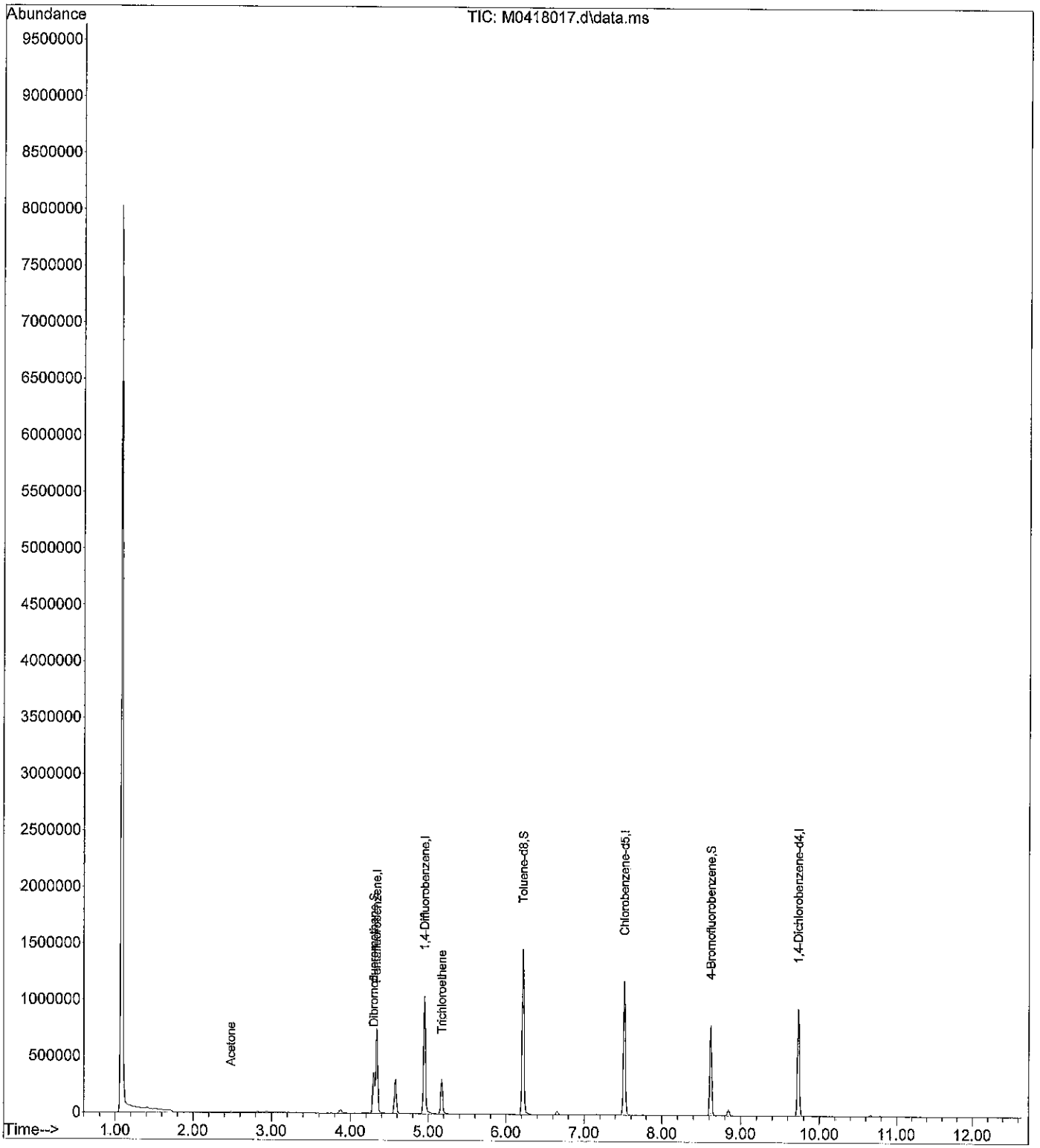
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	481222	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	762847	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	652925	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	261122	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	199013	9.08	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 90.80%			
36) Toluene-d8	6.220	98	901449	10.03	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.30%			
54) 4-Bromofluorobenzene	8.622	95	269909	9.31	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.10%			
Target Compounds						Qvalue
9) Acetone	2.483	43	5326	1.07	ppb	98
29) Trichloroethene	5.171	130	98311	2.92	ppb	99

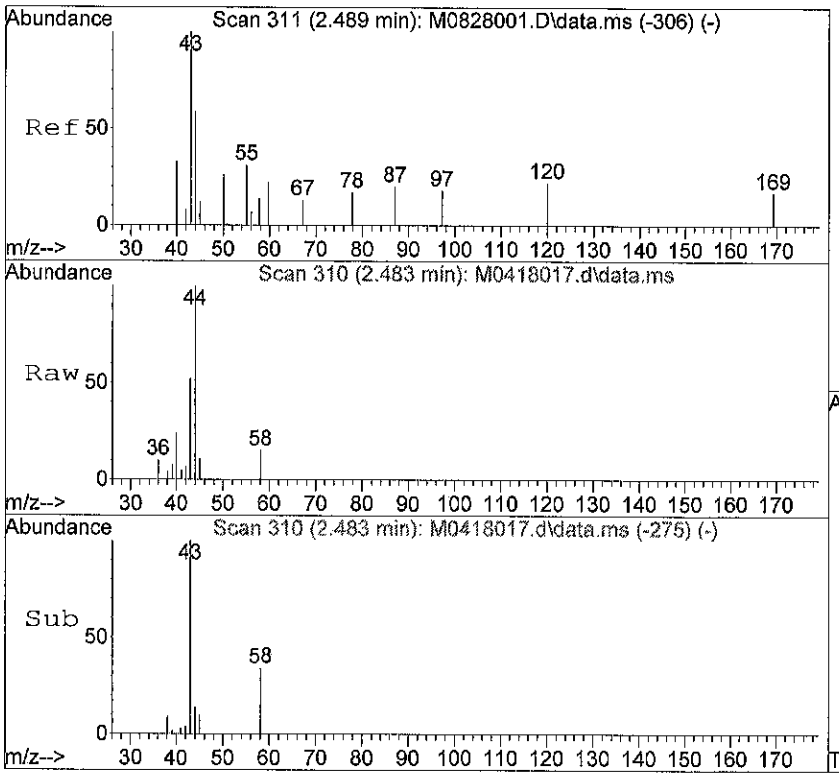
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418017.d
Acq On : 18 Apr 2014 2:07 pm
Operator :
Sample : 04-122-03b
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 18 14:28:50 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

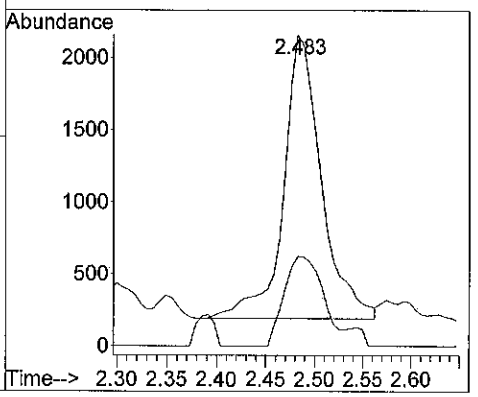


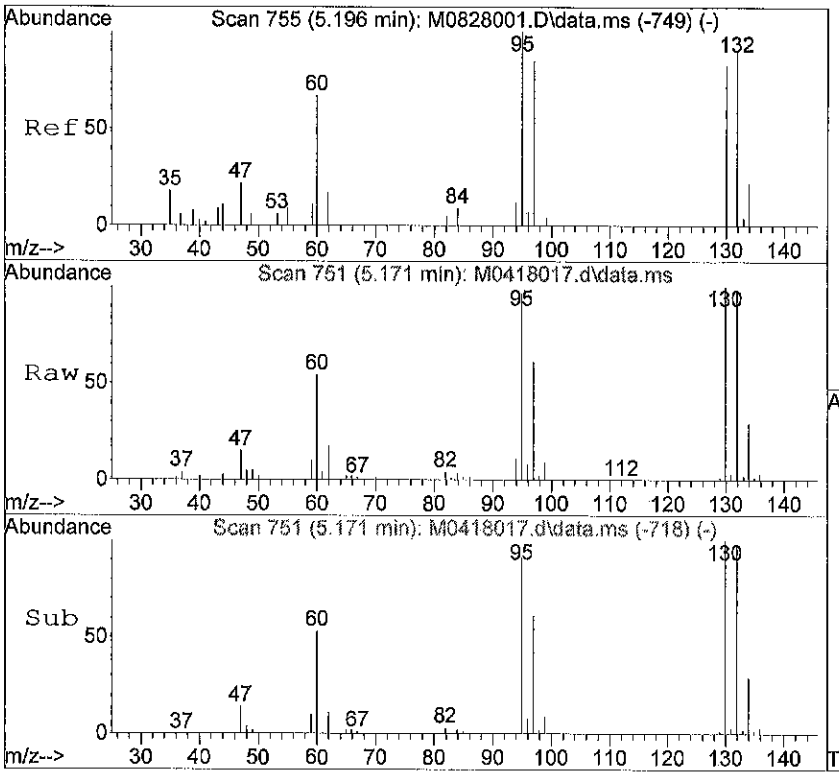


#9
Acetone
Concen: 1.07 ppb
RT: 2.483 min Scan# 310
Delta R.T. 0.012 min
Lab File: M0418017.d
Acq: 18 Apr 2014 2:07 pm

Tgt Ion: 43 Resp: 5326

Ion	Ratio	Lower	Upper
43	100		
58	32.7	25.4	38.0

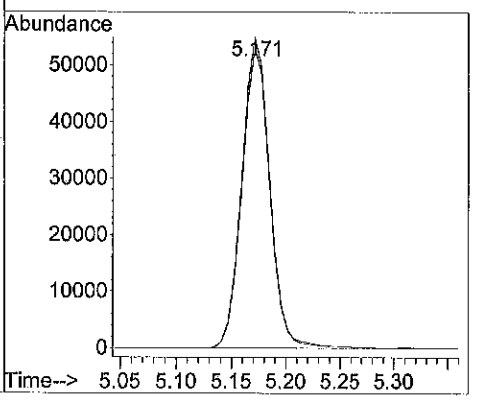




#29
Trichloroethene
Concen: 2.92 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0418017.d
Acq: 18 Apr 2014 2:07 pm

Tgt Ion:130 Resp: 98311

Ion	Ratio	Lower	Upper
130	100		
132	95.4	77.0	115.6



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418015.d
Acq On : 18 Apr 2014 1:20 pm
Operator :
Sample : 04-122-04b
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 18 13:33:41 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

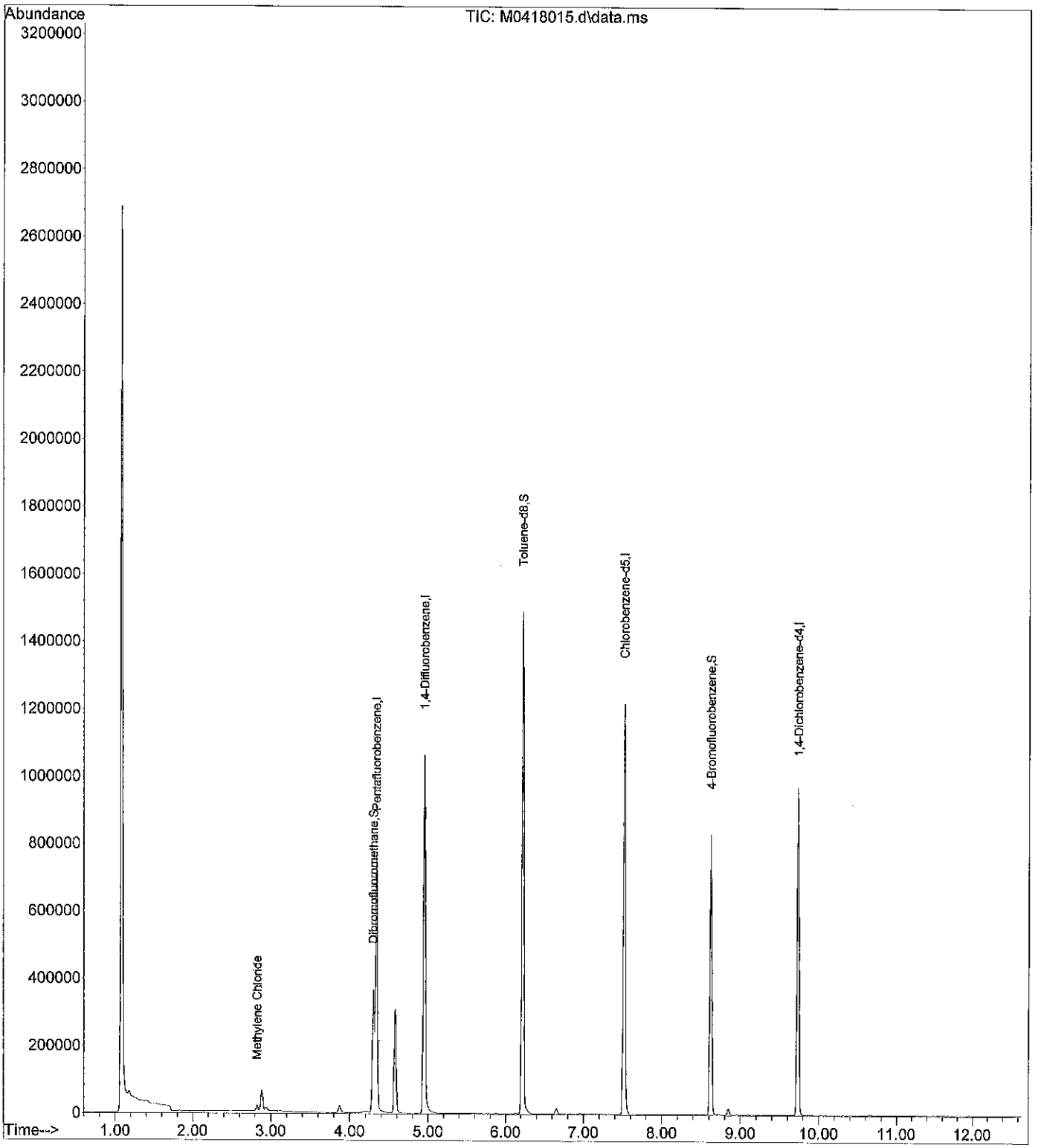
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	493717	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	777234	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	665579	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.737	152	268042	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	200979	8.94	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 89.40%			
36) Toluene-d8	6.220	98	910621	9.94	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.40%			
54) 4-Bromofluorobenzene	8.622	95	281908	9.54	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 95.40%			
Target Compounds						Qvalue
12) Methylene Chloride	2.824	49	10848	0.22	ppb	95

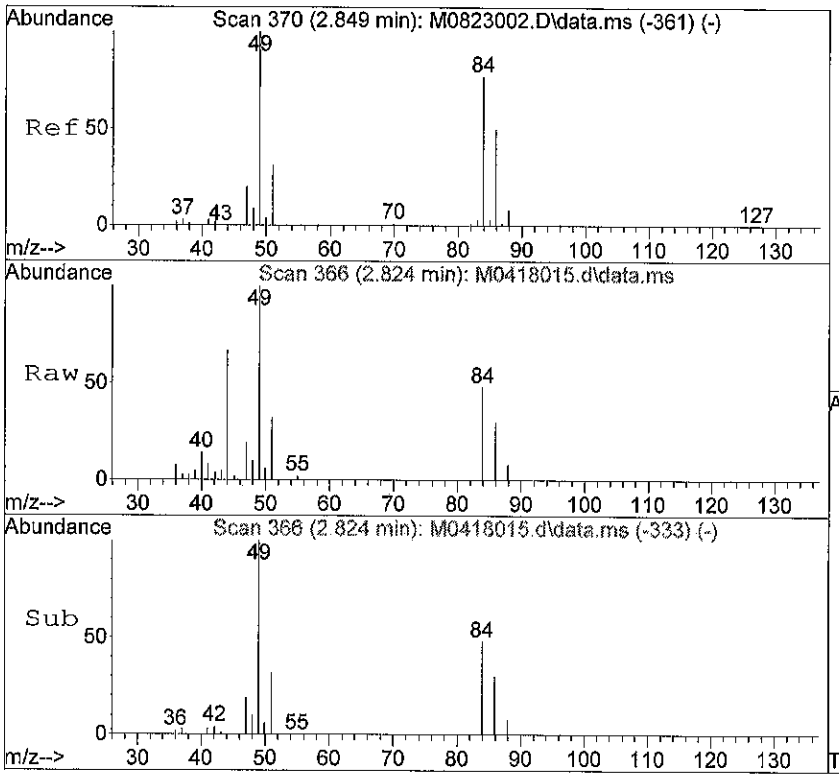
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418015.d
Acq On : 18 Apr 2014 1:20 pm
Operator :
Sample : 04-122-04b
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 18 13:33:41 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

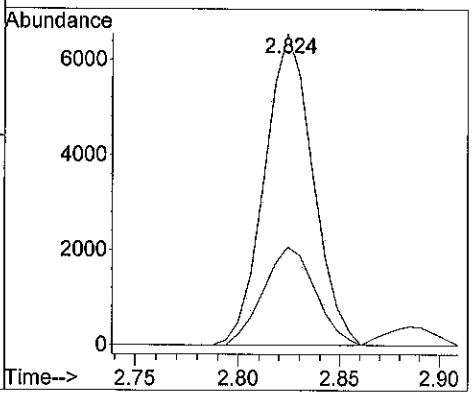




#12
Methylene Chloride
Concen: 0.22 ppb
RT: 2.824 min Scan# 366
Delta R.T. 0.000 min
Lab File: M0418015.d
Acq: 18 Apr 2014 1:20 pm

Tgt Ion: 49 Resp: 10848

Ion	Ratio	Lower	Upper
49	100		
51	33.8	24.8	37.2



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418014.d
Acq On : 18 Apr 2014 12:57 pm
Operator :
Sample : 04-122-05b
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 18 13:12:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

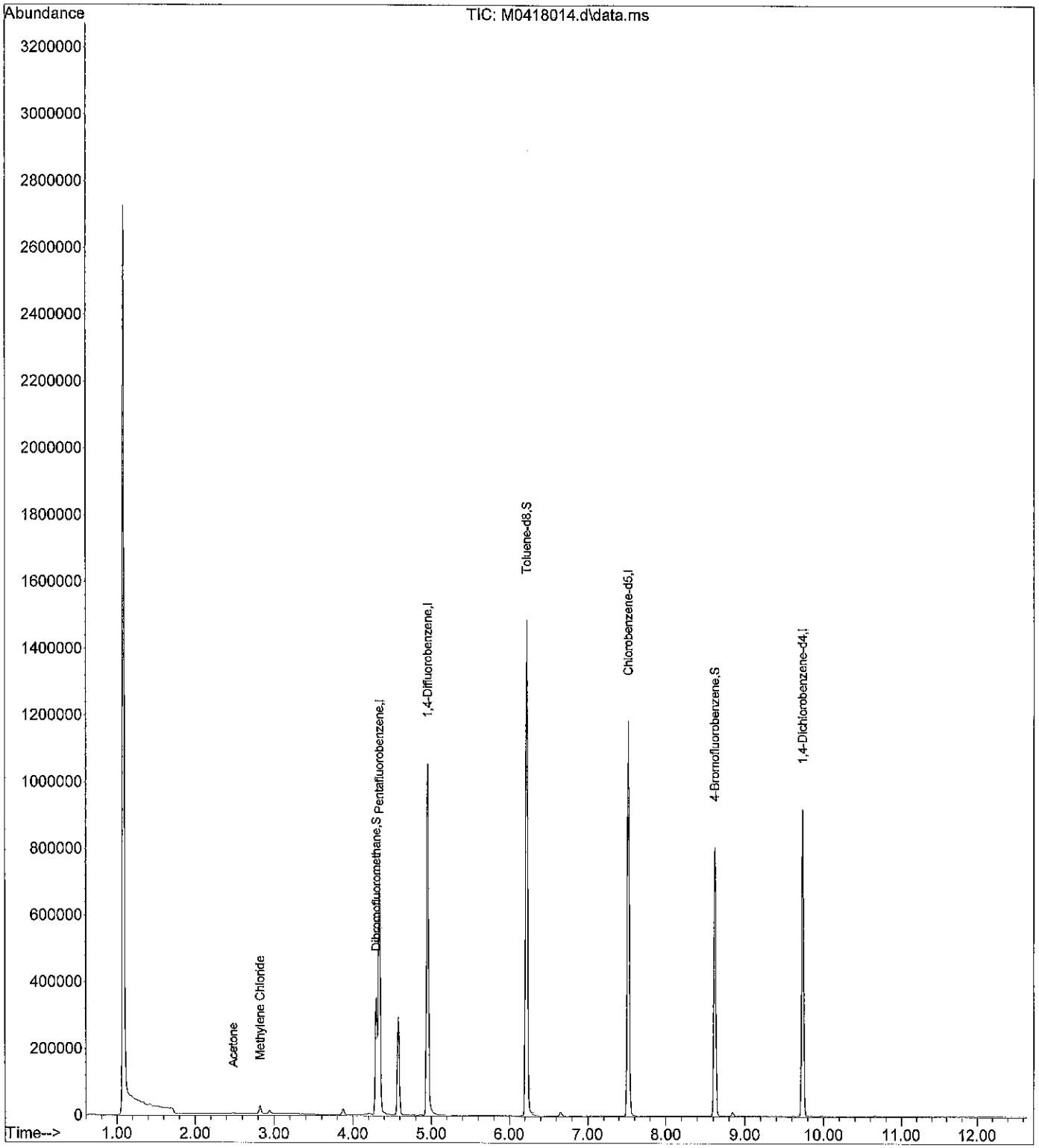
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	488827	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	769800	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	644289	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	249450	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	197020	8.85	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 88.50%			
36) Toluene-d8	6.220	98	909962	10.03	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.30%			
54) 4-Bromofluorobenzene	8.622	95	268667	9.39	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.90%			
Target Compounds						Qvalue
9) Acetone	2.483	43	2879	0.28	ppb	98
12) Methylene Chloride	2.824	49	14175	0.29	ppb	96

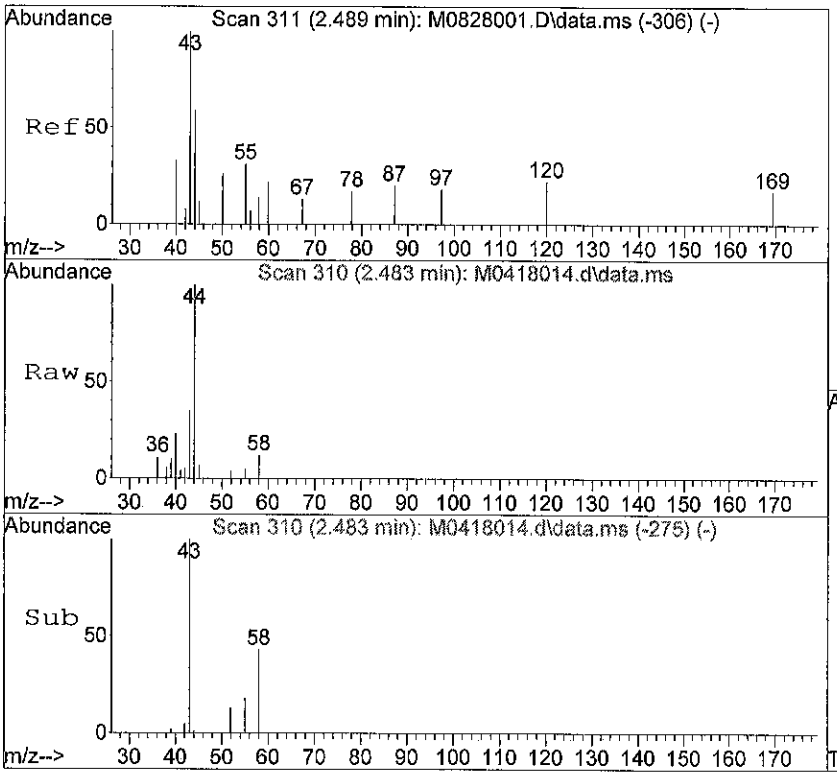
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418014.d
Acq On : 18 Apr 2014 12:57 pm
Operator :
Sample : 04-122-05b
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 18 13:12:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

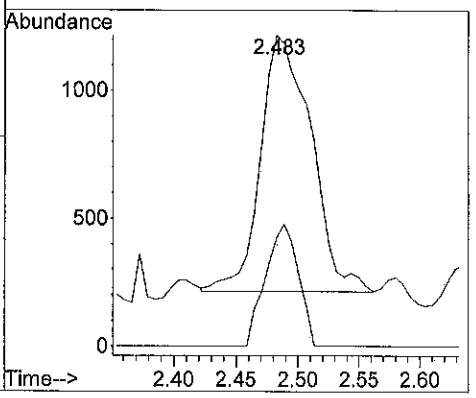


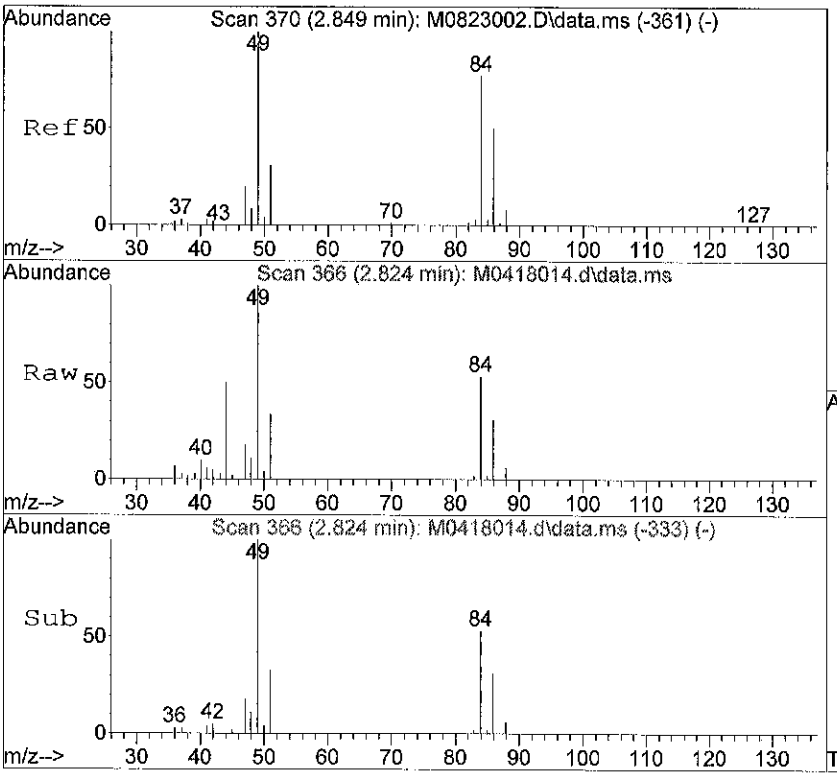


#9
Acetone
Concen: 0.28 ppb .
RT: 2.483 min Scan# 310
Delta R.T. 0.012 min
Lab File: M0418014.d
Acq: 18 Apr 2014 12:57 pm

Tgt Ion: 43 Resp: 2879

Ion	Ratio	Lower	Upper
43	100		
58	30.7	25.4	38.0

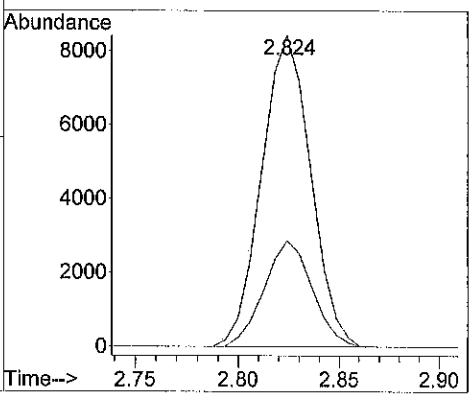




#12
Methylene Chloride
Concen: 0.29 ppb
RT: 2.824 min Scan# 366
Delta R.T. 0.000 min
Lab File: M0418014.d
Acq: 18 Apr 2014 12:57 pm

Tgt Ion: 49 Resp: 14175

Ion	Ratio	Lower	Upper
49	100		
51	33.2	24.8	37.2



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418006.d
Acq On : 18 Apr 2014 9:11 am
Operator :
Sample : MB0418W1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 18 09:29:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

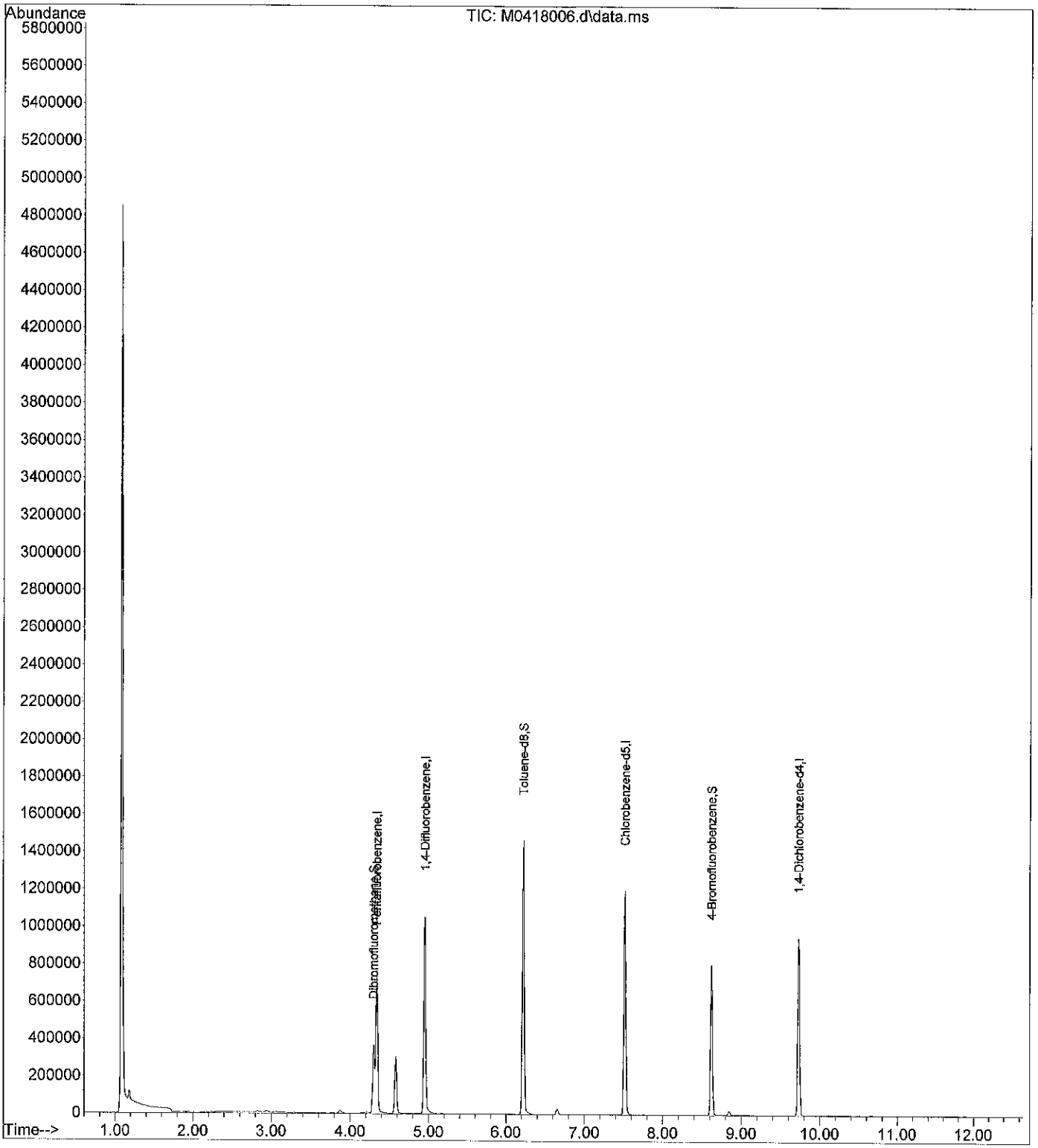
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	494341	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	770347	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	650172	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	259580	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	198229	8.81	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 88.10%			
36) Toluene-d8	6.220	98	904139	9.96	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.60%			
54) 4-Bromofluorobenzene	8.622	95	270545	9.37	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.70%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418006.d
Acq On : 18 Apr 2014 9:11 am
Operator :
Sample : MB0418W1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 18 09:29:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418003.d
Acq On : 18 Apr 2014 7:56 am
Operator :
Sample : SB0418W1
Misc : V3-125-5
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 18 09:05:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

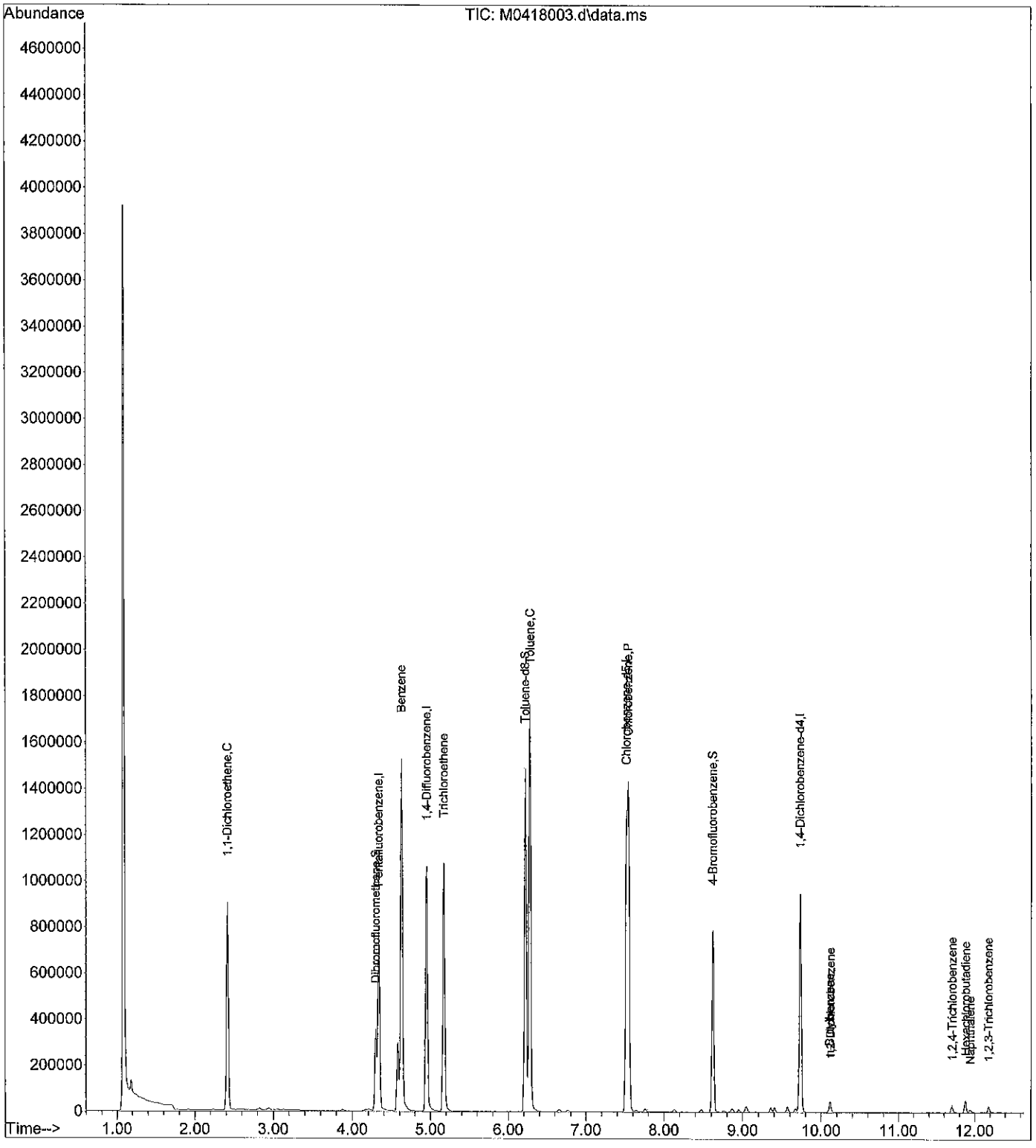
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	503473	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	783062	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	644187	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	253080	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	196368	8.56	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 85.60%				
36) Toluene-d8	6.220	98	919308	9.96	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.60%				
54) 4-Bromofluorobenzene	8.622	95	265575	9.29	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.90%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	580501	10.03	ppb		99
26) Benzene	4.629	78	1128938	9.79	ppb		100
29) Trichloroethene	5.171	130	327889	9.49	ppb		99
37) Toluene	6.281	91	1220820	9.58	ppb		99
46) Chlorobenzene	7.543	112	706559	9.85	ppb		100
69) 1,2-Dichlorobenzene	10.121	146	5777	0.20	ppb		94
70) n-Butylbenzene	10.109	91	18310	0.23	ppb	#	89
72) 1,2,4-Trichlorobenzene	11.707	180	10081	1.27	ppb		96
73) Hexachlorobutadiene	11.883	225	11315	1.53	ppb		100
74) Naphthalene	11.944	128	10419	1.11	ppb	#	93
75) 1,2,3-Trichlorobenzene	12.182	180	8808	1.82	ppb		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418003.d
Acq On : 18 Apr 2014 7:56 am
Operator :
Sample : SB0418W1
Misc : V3-125-5
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 18 09:05:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418007.d
Acq On : 18 Apr 2014 9:34 am
Operator :
Sample : 04-122-02b
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 18 09:51:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

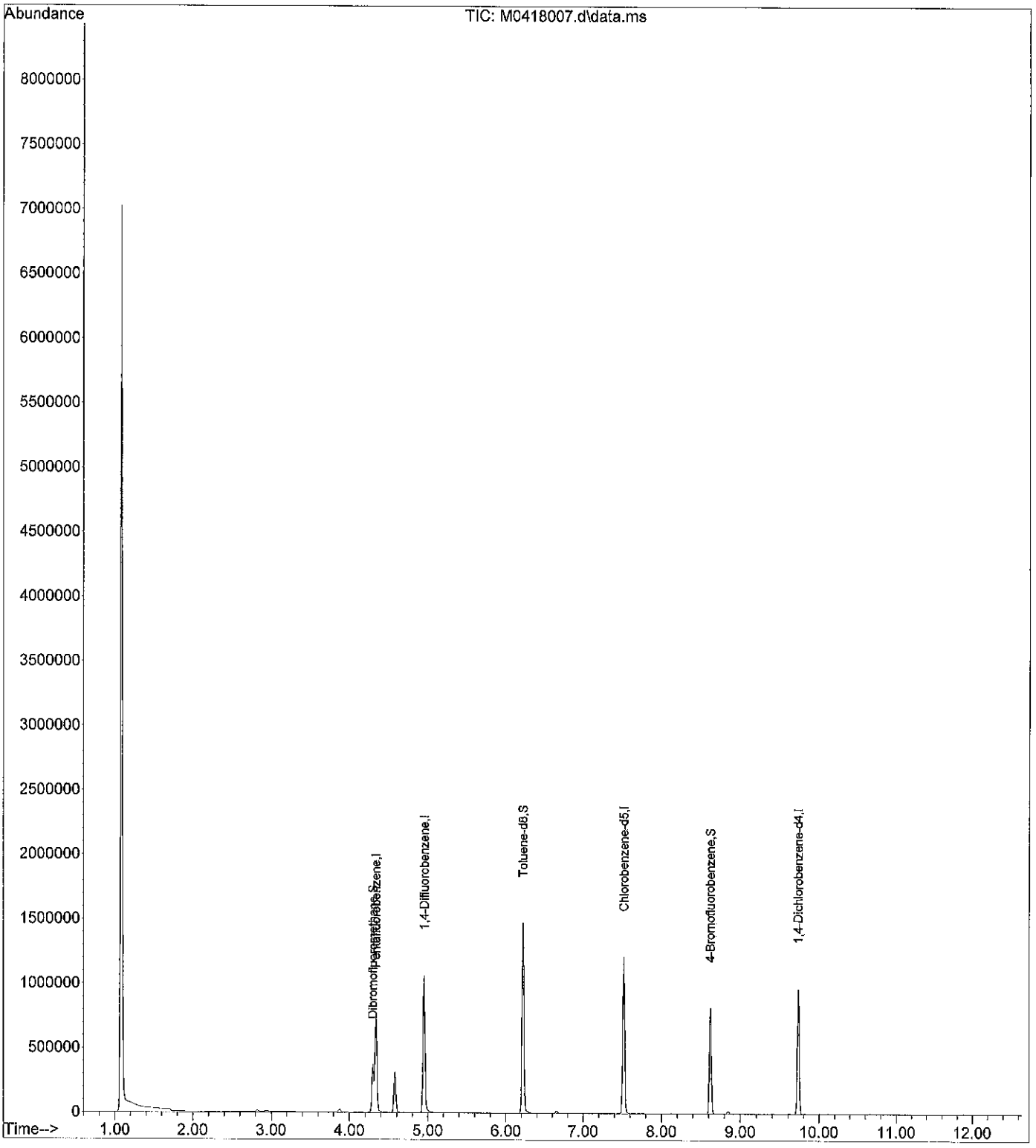
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	494142	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	778189	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	659570	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	268120	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	203202	9.03	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 90.30%			
36) Toluene-d8	6.220	98	913727	9.96	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.60%			
54) 4-Bromofluorobenzene	8.622	95	276294	9.44	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.40%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418007.d
Acq On : 18 Apr 2014 9:34 am
Operator :
Sample : 04-122-02b
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 18 09:51:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418004.d
Acq On : 18 Apr 2014 8:24 am
Operator :
Sample : 04-122-02c MS
Misc : V3-125-5
ALS Vial : 4 Sample Multiplier: 1

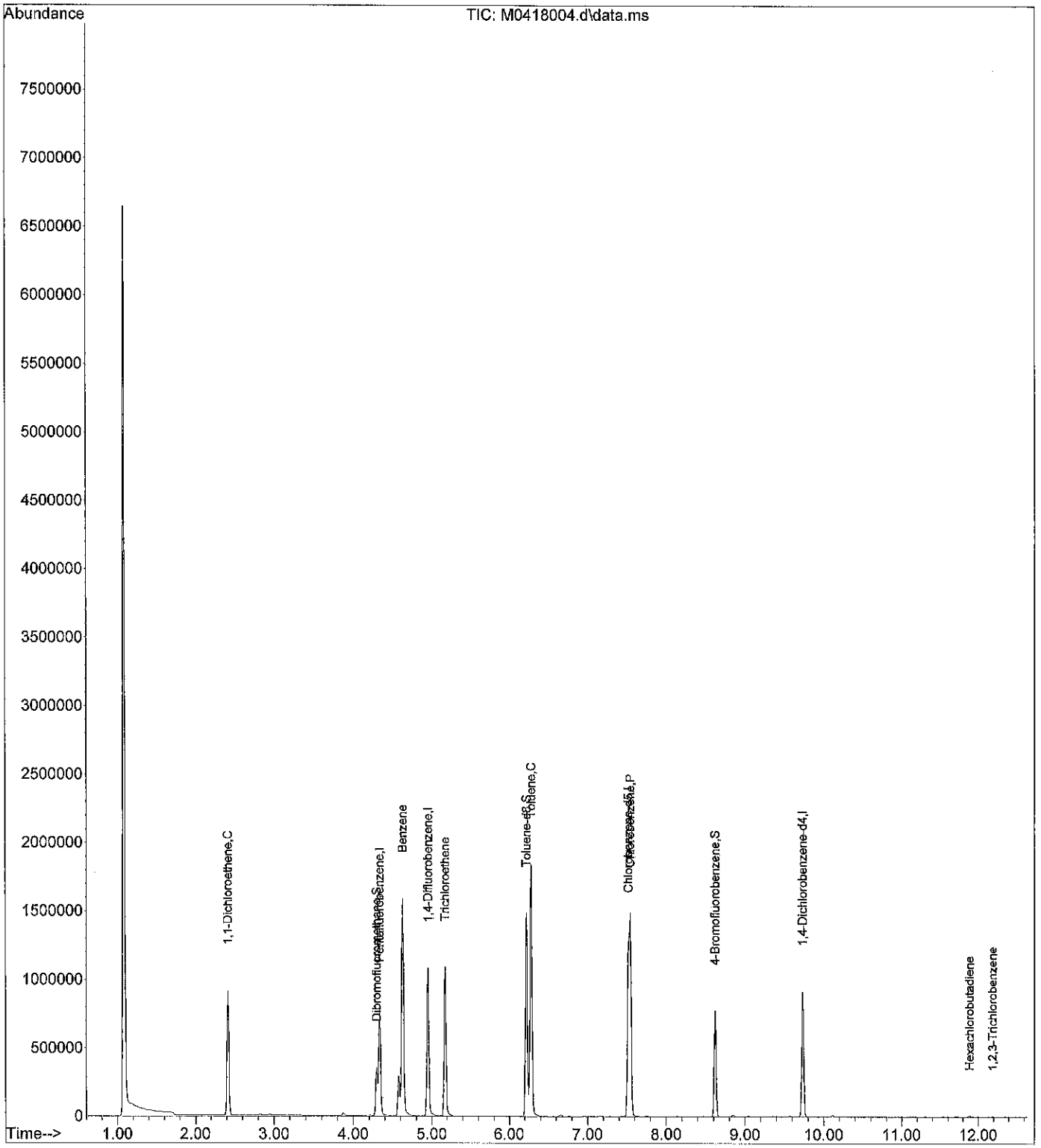
Quant Time: Apr 18 09:06:55 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	505941	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	794187	10.00	ppb		0.00
38) Chlorobenzene-d5	7.519	117	645562	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.732	152	251460	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	198869	8.63	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 86.30%				
36) Toluene-d8	6.220	98	925787	9.89	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 98.90%				
54) 4-Bromofluorobenzene	8.622	95	268456	9.37	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.70%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	602566	10.36	ppb		100
26) Benzene	4.629	78	1183463	10.21	ppb		100
29) Trichloroethene	5.171	130	346355	9.89	ppb		99
37) Toluene	6.275	91	1273168	9.85	ppb		100
46) Chlorobenzene	7.543	112	736446	10.25	ppb		100
73) Hexachlorobutadiene	11.884	225	2349	0.32	ppb		96
75) 1,2,3-Trichlorobenzene	12.188	180	1818	0.48	ppb	#	72

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418004.d
Acq On : 18 Apr 2014 8:24 am
Operator :
Sample : 04-122-02c MS
Misc : V3-125-5
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 18 09:06:55 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418005.d
Acq On : 18 Apr 2014 8:48 am
Operator :
Sample : 04-122-02d MSD
Misc : V3-125-5
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 18 09:07:41 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

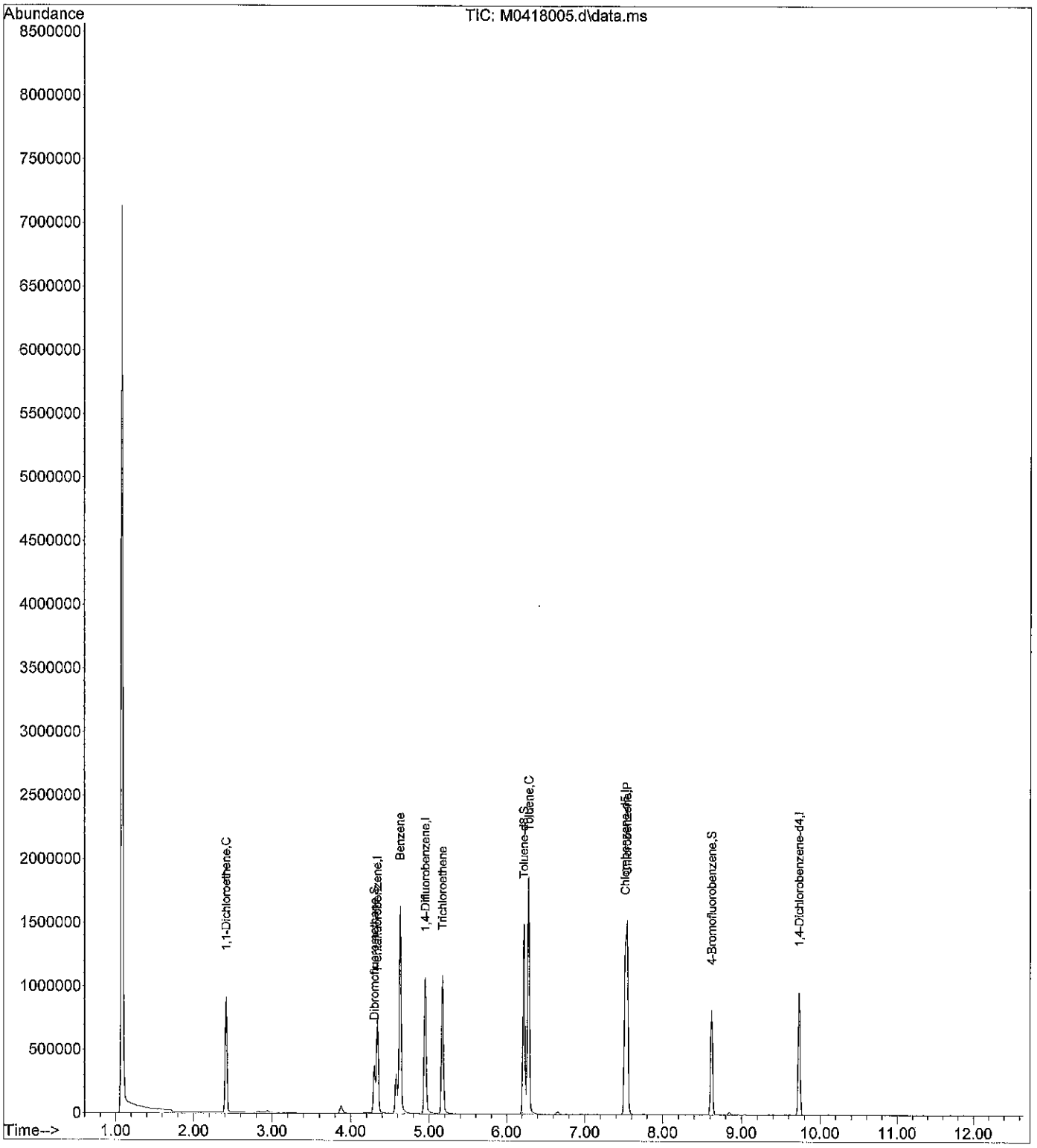
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	494844	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	787768	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	670651	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	265527	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	204594	9.08	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 90.80%			
36) Toluene-d8	6.220	98	927358	9.99	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.90%			
54) 4-Bromofluorobenzene	8.622	95	277325	9.32	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.20%			
Target Compounds						Qvalue
8) 1,1-Dichloroethene	2.416	61	593263	10.43	ppb	100
26) Benzene	4.629	78	1191635	10.51	ppb	100
29) Trichloroethene	5.171	130	343109	9.87	ppb	99
37) Toluene	6.281	91	1289490	10.06	ppb	100
46) Chlorobenzene	7.543	112	755852	10.12	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418005.d
Acq On : 18 Apr 2014 8:48 am
Operator :
Sample : 04-122-02d MSD
Misc : V3-125-5
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 18 09:07:41 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Compound List Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014
Response Via : Initial Calibration

Total Cpnds : 75

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene	168	4.336	1.000	A	0	A	B
2		Dichlorodifluoromethane	85	1.209	0.279	A	1	A	B
3	P	Chloromethane	50	1.343	0.310	A	1	A	B
4	C	Vinyl Chloride	62	1.428	0.329	A	1	A	B
5		Bromomethane	96	1.690	0.390	A	1	A	B
6		Chloroethane	64	1.770	0.408	A	1	A	B
7		Trichlorofluoromethane	101	1.977	0.456	A	1	A	B
8	C	1,1-Dichloroethene	61	2.416	0.557	A	1	A	B
9		Acetone	43	2.471	0.570	L	1	A	B
10		Iodomethane	142	2.538	0.585	L	1	A	B
11		Carbon Disulfide	76	2.593	0.598	A	1	A	B
12		Methylene Chloride	49	2.824	0.651	A	1	A	B
13		(trans) 1,2-Dichloroethene	61	3.056	0.705	A	1	A	B
14		Methyl t-Butyl Ether	73	3.068	0.708	A	3	A	B
15	P	1,1-Dichloroethane	63	3.410	0.786	A	1	A	B
16		Vinyl Acetate	43	3.458	0.798	A	1	A	B
17		2,2-Dichloropropane	77	3.897	0.899	A	1	A	B
18		(cis) 1,2-Dichloroethene	61	3.897	0.899	A	1	A	B
19		2-Butanone	43	3.922	0.905	A	1	A	B
20		Bromochloromethane	130	4.098	0.945	A	3	A	B
21	C	Chloroform	83	4.165	0.961	A	1	A	B
22		1,1,1-Trichloroethane	97	4.318	0.996	A	1	A	B
23	S	Dibromofluoromethane	111	4.300	0.992	A	1	A	B
24		Carbon Tetrachloride	117	4.458	1.028	A	1	A	B
25		1,1-Dichloropropene	75	4.452	1.027	A	1	A	B
26		Benzene	78	4.629	1.068	A	1	A	B
27		1,2-Dichloroethane	62	4.641	1.070	A	1	A	B
28	I	1,4-Difluorobenzene	114	4.952	1.000	A	0	A	B
29		Trichloroethene	130	5.171	1.044	A	1	A	B
30	C	1,2-Dichloropropane	63	5.360	1.082	A	1	A	B
31		Dibromomethane	174	5.464	1.103	A	2	A	B
32		Bromodichloromethane	83	5.598	1.130	A	1	A	B
33		2-Chloroethyl Vinyl Ether	63	5.860	1.183	A	1	A	B
34		(cis) 1,3-Dichloropropene	75	5.982	1.208	A	1	A	B
35		Methyl Isobutyl Ketone	43	6.122	1.236	A	3	A	B
36	S	Toluene-d8	98	6.220	1.256	A	1	A	B
37	C	Toluene	91	6.275	1.267	A	1	A	B
38	I	Chlorobenzene-d5	117	7.518	1.000	A	1	A	B
39		(trans) 1,3-Dichloropropene	75	6.470	0.861	A	1	A	B
40		1,1,2-Trichloroethane	97	6.635	0.883	A	1	A	B
41		Tetrachloroethene	166	6.769	0.900	A	2	A	B
42		1,3-Dichloropropane	76	6.787	0.903	A	1	A	B
43		2-Hexanone	43	6.866	0.913	A	3	A	B
44		Dibromochloromethane	129	6.988	0.930	A	2	A	B
45		1,2-Dibromoethane	107	7.092	0.943	A	1	A	B
46	P	Chlorobenzene	112	7.543	1.003	A	1	A	B
47		1,1,1,2-Tetrachloroethane	133	7.616	1.013	A	2	A	B
48	C	Ethylbenzene	91	7.646	1.017	A	1	A	B
49		m,p-Xylene	91	7.756	1.032	A	1	A	B
50		o-Xylene	91	8.128	1.081	A	1	A	B
51		Styrene	104	8.140	1.083	A	0	A	B
52	P	Bromoform	173	8.311	1.105	A	2	A	B
53		Isopropylbenzene	105	8.476	1.127	A	1	A	B
54	S	4-Bromofluorobenzene	95	8.616	1.146	A	2	A	B

55	I	1,4-Dichlorobenzene-d4	152	9.731	1.000	A	1	A	B
56		Bromobenzene	156	8.762	0.900	A	1	A	B
57	P	1,1,2,2-Tetrachloroethane	83	8.762	0.900	A	1	A	B
58		1,2,3-Trichloropropane	75	8.799	0.904	A	1	A	B
59		n-Propylbenzene	91	8.872	0.912	A	1	A	B
60		2-Chlorotoluene	126	8.951	0.920	A	1	A	B
61		4-Chlorotoluene	126	9.055	0.931	A	1	A	B
62		1,3,5-Trimethylbenzene	105	9.043	0.929	A	1	A	B
63		tert-Butylbenzene	119	9.353	0.961	A	1	A	B
64		1,2,4-Trimethylbenzene	105	9.402	0.966	A	1	A	B
65		sec-Butylbenzene	105	9.567	0.983	A	1	A	B
66		1,3-Dichlorobenzene	146	9.670	0.994	A	1	A	B
67		p-Isopropyltoluene	119	9.713	0.998	A	1	A	B
68		1,4-Dichlorobenzene	146	9.756	1.003	A	1	A	B
69		1,2-Dichlorobenzene	146	10.116	1.040	A	1	A	B
70		n-Butylbenzene	91	10.109	1.039	A	1	A	B
71		1,2-Dibromo-3-chloropropane	157	10.884	1.118	A	2	A	B
72		1,2,4-Trichlorobenzene	180	11.701	1.202	A	2	A	B
73		Hexachlorobutadiene	225	11.883	1.221	A	2	A	B
74		Naphthalene	128	11.944	1.227	A	1	A	B
75		1,2,3-Trichlorobenzene	180	12.182	1.252	L	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

M140328W.M Fri Mar 28 13:13:22 2014

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014
Response Via : Initial Calibration

Calibration Files
.2 =M0328003.d 1 =M0328004.d 2 =M0328005.d 5 =M0328006.d 10 =M0328007.d 25 =M0328009.d
50 =M0328011.d .1 =M0716005.d

		Compound	.2	1	2	5	10	25	50	.1	Avg	%RSD
1)	I	Pentafluorobenzene	ISTD									
2)		Dichlorodifluo...	0.731	0.674	0.745	0.721	0.732	0.902	0.866		0.767#	10.86
3)	P	Chloromethane	1.322	1.085	1.163	1.119	1.136	1.255	1.220		1.186	7.07
4)	C	Vinyl Chloride	1.043	0.912	0.981	0.959	0.988	1.068	1.043		0.999#	5.52#
5)		Bromomethane	0.556	0.485	0.468	0.441	0.450	0.468	0.455		0.475#	8.17
6)		Chloroethane	0.625	0.496	0.509	0.492	0.506	0.527	0.513		0.524#	8.82
7)		Trichlorofluor...	1.156	1.019	1.056	1.033	1.070	1.117	1.080		1.076#	4.44
8)	C	1,1-Dichloroet...	1.241	1.098	1.119	1.116	1.139	1.185	1.149		1.150#	4.28#
9)		Acetone		0.091	0.094	0.079	0.071	0.071	0.065		0.079#	15.41
10)		Iodomethane		0.538	0.633	0.703	0.753	0.828	0.787		0.707#	15.14
11)		Carbon Disulfide	1.915	1.725	1.786	1.757	1.809	1.917	1.887		1.828#	4.27
12)		Methylene Chlo...	1.192	0.974	0.974	0.934	0.942	0.966	0.942		0.989#	9.22
13)		(trans) 1,2-Di...	1.274	1.090	1.151	1.091	1.147	1.190	1.161		1.158#	5.43
14)		Methyl t-Butyl...	0.739	0.711	0.732	0.724	0.712	0.737	0.748		0.729#	1.91
15)	P	1,1-Dichloroet...	1.345	1.272	1.313	1.288	1.313	1.365	1.339		1.319	2.47
16)		Vinyl Acetate		0.614	0.569	0.542	0.518	0.545			0.558#	6.53
17)		2,2-Dichloropr...	0.870	0.833	0.840	0.814	0.843	0.864	0.832		0.842#	2.31
18)		(cis) 1,2-Dich...	1.198	1.187	1.196	1.189	1.212	1.281	1.265		1.218#	3.17
19)		2-Butanone	0.125	0.124	0.129	0.120	0.116	0.119	0.113		0.121#	4.60
20)		Bromochloromet...	0.248	0.246	0.258	0.251	0.256	0.264	0.263		0.255#	2.79
21)	C	Chloroform	1.120	1.006	1.026	1.020	1.022	1.063	1.041		1.043#	3.72#
22)		1,1,1-Trichlor...	1.045	0.986	0.979	0.971	1.000	1.040	1.016		1.005#	2.90
23)	S	Dibromofluorom...	0.432	0.452	0.466	0.464	0.455	0.460	0.459		0.455#	2.52
24)		Carbon Tetrach...	1.007	0.907	0.921	0.894	0.918	0.975	0.953		0.939#	4.33
25)		1,1-Dichloropr...	0.957	0.826	0.855	0.825	0.850	0.898	0.887		0.871#	5.40
26)		Benzene	2.426	2.214	2.226	2.215	2.261	2.360	2.336		2.291#	3.64
27)		1,2-Dichloroet...	0.629	0.625	0.641	0.627	0.635	0.651	0.634		0.634#	1.46
28)	I	1,4-Difluorobenzene	ISTD									
29)		Trichloroethene	0.485	0.417	0.432	0.425	0.433	0.460	0.435		0.441#	5.29
30)	C	1,2-Dichloropr...	0.380	0.396	0.404	0.399	0.397	0.420	0.421		0.403#	3.55#
31)		Dibromomethane	0.113	0.127	0.135	0.131	0.129	0.135	0.134		0.129#	6.02
32)		Bromodichlorom...	0.366	0.406	0.402	0.392	0.396	0.417	0.423		0.400#	4.69
33)		2-Chloroethyl ...		0.019	0.022	0.020	0.020	0.022	0.026		0.022#	11.46
34)		(cis) 1,3-Dich...	0.357	0.379	0.399	0.410	0.417	0.457	0.460		0.411#	9.25
35)		Methyl Isobuty...	0.150	0.133	0.150	0.144	0.139	0.152	0.162		0.147#	6.45
36)	S	Toluene-d8	1.157	1.169	1.180	1.181	1.176	1.184	1.201		1.178#	1.16
37)	C	Toluene	1.762	1.581	1.569	1.556	1.567	1.668	1.689		1.628#	4.88#

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :

38)	I	Chlorobenzene-d5	ISTD								
39)		(trans) 1,3-Di...	0.329	0.326	0.342	0.341	0.362	0.382	0.382	0.352#	6.74
40)		1,1,2-Trichlor...	0.258	0.200	0.201	0.200	0.200	0.213	0.208	0.212#	10.00
41)		Tetrachloroethene	0.585	0.541	0.533	0.515	0.537	0.563	0.545	0.546#	4.10
42)		1,3-Dichloropr...	0.363	0.346	0.364	0.369	0.371	0.386	0.377	0.368#	3.43
43)		2-Hexanone	0.142	0.125	0.116	0.123	0.117	0.132	0.130	0.126#	7.09
44)		Dibromochlorom...	0.253	0.266	0.266	0.270	0.273	0.293	0.293	0.273#	5.38
45)		1,2-Dibromoethane	0.177	0.186	0.186	0.186	0.183	0.193	0.185	0.185#	2.57
46)	P	Chlorobenzene	1.255	1.079	1.070	1.047	1.080	1.139	1.123	1.113	6.29
47)		1,1,1,2-Tetrac...	0.341	0.354	0.343	0.353	0.362	0.379	0.379	0.359#	4.32
48)	C	Ethylbenzene	2.325	1.997	2.059	2.064	2.191	2.361	2.310	2.186#	6.78#
49)		m,p-Xylene	1.605	1.490	1.545	1.591	1.662	1.789	1.770	1.636#	6.82
50)		o-Xylene	1.494	1.366	1.422	1.447	1.507	1.624	1.603	1.495#	6.27
51)		Styrene	1.023	0.990	1.056	1.103	1.149	1.243	1.236	1.114#	8.97
52)	P	Bromoform	0.125	0.127	0.132	0.139	0.140	0.153	0.158	0.139	9.15
53)		Isopropylbenzene	1.831	1.673	1.754	1.804	1.913	2.064	2.019	1.865#	7.57
54)	S	4-Bromofluorob...	0.413	0.435	0.446	0.452	0.454	0.456	0.452	0.444#	3.48
55)	I	1,4-Dichlorobenzen...	ISTD								
56)		Bromobenzene	1.034	0.877	0.855	0.847	0.875	0.937	0.909	0.905#	7.16
57)	P	1,1,2,2-Tetrac...	0.459	0.445	0.425	0.427	0.414	0.440	0.458	0.438	3.93
58)		1,2,3-Trichlor...	0.352	0.338	0.369	0.338	0.335	0.349	0.341	0.346#	3.40
59)		n-Propylbenzene	6.049	4.935	4.930	4.942	5.346	5.647	5.494	5.335#	8.07
60)		2-Chlorotoluene	1.149	0.992	0.967	0.946	1.025	1.084	1.032	1.028#	6.82
61)		4-Chlorotoluene	1.079	0.964	0.958	0.954	1.011	1.056	1.040	1.009#	5.06
62)		1,3,5-Trimethy...	3.976	3.290	3.584	3.576	3.875	4.120	4.024	3.778#	7.96
63)		tert-Butylbenzene	3.231	2.588	2.781	2.779	3.103	3.224	3.128	2.977#	8.60
64)		1,2,4-Trimethy...	3.625	3.172	3.266	3.380	3.588	3.771	3.711	3.502#	6.57
65)		sec-Butylbenzene	4.557	3.886	3.983	4.040	4.421	4.650	4.517	4.293#	7.30
66)		1,3-Dichlorobe...	1.683	1.484	1.540	1.486	1.544	1.611	1.593	1.563#	4.57
67)		p-Isopropyltol...	3.569	2.941	3.184	3.180	3.473	3.704	3.617	3.381#	8.34
68)		1,4-Dichlorobe...	1.842	1.506	1.586	1.565	1.606	1.679	1.655	1.634#	6.61
69)		1,2-Dichlorobe...	1.147	1.061	1.102	1.111	1.127	1.195	1.194	1.134#	4.31
70)		n-Butylbenzene	3.362	2.757	2.828	2.927	3.122	3.314	3.297	3.086#	8.09
71)		1,2-Dibromo-3-...		0.040	0.049	0.048	0.050	0.056	0.056	0.050#	11.77
72)		1,2,4-Trichlor...	0.294	0.266	0.307	0.323	0.312	0.332	0.356	0.313#	9.10
73)		Hexachlorobuta...	0.353	0.269	0.277	0.291	0.281	0.290	0.290	0.293#	9.51
74)		Naphthalene		0.325	0.338	0.368	0.366	0.397	0.439	0.372#	11.18
75)		1,2,3-Trichlor...	0.123	0.149	0.177	0.203	0.199	0.196	0.211	0.180#	18.07

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	485934	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	740470	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	555715	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	198284	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.293	111	209890	9.62	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 96.20%				
36) Toluene-d8	6.220	98	856932	9.84	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 98.40%				
54) 4-Bromofluorobenzene	8.616	95	229303	9.00	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 90.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	7107	0.19	ppb		100
3) Chloromethane	1.343	50	12848	0.22	ppb		100
4) Vinyl Chloride	1.428	62	10132	0.21	ppb		92
5) Bromomethane	1.684	96	5406	0.24	ppb		94
6) Chloroethane	1.763	64	6077	0.24	ppb		98
7) Trichlorofluoromethane	1.977	101	11235	0.22	ppb		97
8) 1,1-Dichloroethene	2.416	61	12064	0.22	ppb		99
9) ~~Acetone~~	2.465	43	3046	0.32	ppb		92
10) ~~Iodomethane~~	2.538	142	4255	0.53	ppb		96
11) Carbon Disulfide	2.593	76	18609	0.21	ppb		95
12) Methylene Chloride	2.824	49	11589	0.24	ppb		97
13) (trans) 1,2-Dichloroet...	3.056	61	12377	0.23	ppb		99
14) Methyl t-Butyl Ether	3.068	73	7179	0.20	ppb	#	88
15) 1,1-Dichloroethane	3.410	63	13071	0.21	ppb		96
16) ~~Vinyl Acetate~~	3.458	43	7482	0.66	ppb	#	81
17) 2,2-Dichloropropane	3.891	77	8459	0.20	ppb	#	78
18) (cis) 1,2-Dichloroethene	3.897	61	11646	0.20	ppb		96
19) 2-Butanone	3.916	43	1217	0.21	ppb	#	52
20) Bromochloromethane	4.092	130	2414	0.20	ppb		97
21) Chloroform	4.165	83	10889	0.22	ppb		98
22) 1,1,1-Trichloroethane	4.312	97	10155	0.21	ppb	#	1
24) Carbon Tetrachloride	4.452	117	9784	0.22	ppb		98
25) 1,1-Dichloropropene	4.452	75	9303	0.22	ppb		95
26) Benzene	4.629	78	23574	0.22	ppb		97
27) 1,2-Dichloroethane	4.641	62	6112	0.20	ppb		94
29) Trichloroethene	5.171	130	7176	0.23	ppb		90
30) 1,2-Dichloropropane	5.360	63	5631	0.19	ppb		95
31) Dibromomethane	5.458	174	1675	0.17	ppb	#	91
32) Bromodichloromethane	5.598	83	5416	0.18	ppb		91
33) ~~2-Chloroethyl Vinyl Ether~~	5.860	63	266	2.33	ppb	#	66
34) (cis) 1,3-Dichloropropene	5.982	75	5288	0.17	ppb		97
35) Methyl Isobutyl Ketone	6.122	43	2224	0.21	ppb	#	86
37) Toluene	6.275	91	26096	0.22	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	3652	0.19	ppb		95
40) 1,1,2-Trichloroethane	6.634	97	2870	0.25	ppb	#	81
41) Tetrachloroethene	6.763	166	6500	0.21	ppb		92
42) 1,3-Dichloropropane	6.787	76	4030	0.20	ppb		90
43) 2-Hexanone	6.866	43	1575	0.23	ppb	#	69
44) Dibromochloromethane	6.988	129	2814	0.19	ppb		95

SP 3.28.14

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	1962	0.20	ppb		100
46) Chlorobenzene	7.543	112	13952	0.23	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	3793	0.19	ppb		84
48) Ethylbenzene	7.646	91	25838	0.21	ppb		100
49) m,p-Xylene	7.756	91	35667	0.38	ppb		97
50) o-Xylene	8.128	91	16600	0.19	ppb		100
51) Styrene	8.140	104	11365	0.18	ppb		100
52) Bromoform	8.311	173	1384	0.18	ppb		93
53) Isopropylbenzene	8.476	105	20353	0.19	ppb		96
56) Bromobenzene	8.762	156	4101	0.24	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	1819	0.22	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	1394	0.22	ppb	#	100
59) n-Propylbenzene	8.872	91	23987	0.24	ppb		96
60) 2-Chlorotoluene	8.951	126	4557	0.23	ppb		98
61) 4-Chlorotoluene	9.055	126	4278	0.22	ppb		96
62) 1,3,5-Trimethylbenzene	9.043	105	15766	0.21	ppb		96
63) tert-Butylbenzene	9.353	119	12815	0.22	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	14377	0.20	ppb		97
65) sec-Butylbenzene	9.567	105	18071	0.21	ppb		96
66) 1,3-Dichlorobenzene	9.670	146	6674	0.21	ppb		100
67) p-Isopropyltoluene	9.713	119	14152	0.20	ppb		98
68) 1,4-Dichlorobenzene	9.756	146	7304	0.22	ppb		92
69) 1,2-Dichlorobenzene	10.116	146	4547	0.19	ppb		99
70) n-Butylbenzene	10.109	91	13331	0.20	ppb		99
72) 1,2,4-Trichlorobenzene	11.707	180	1167	0.10	ppb		93
73) Hexachlorobutadiene	11.877	225	1401	0.12	ppb		95
74) Naphthalene	11.944	128	1039	0.61	ppb	#	72
75) 1,2,3-Trichlorobenzene	12.188	180	489	0.21	ppb	#	67

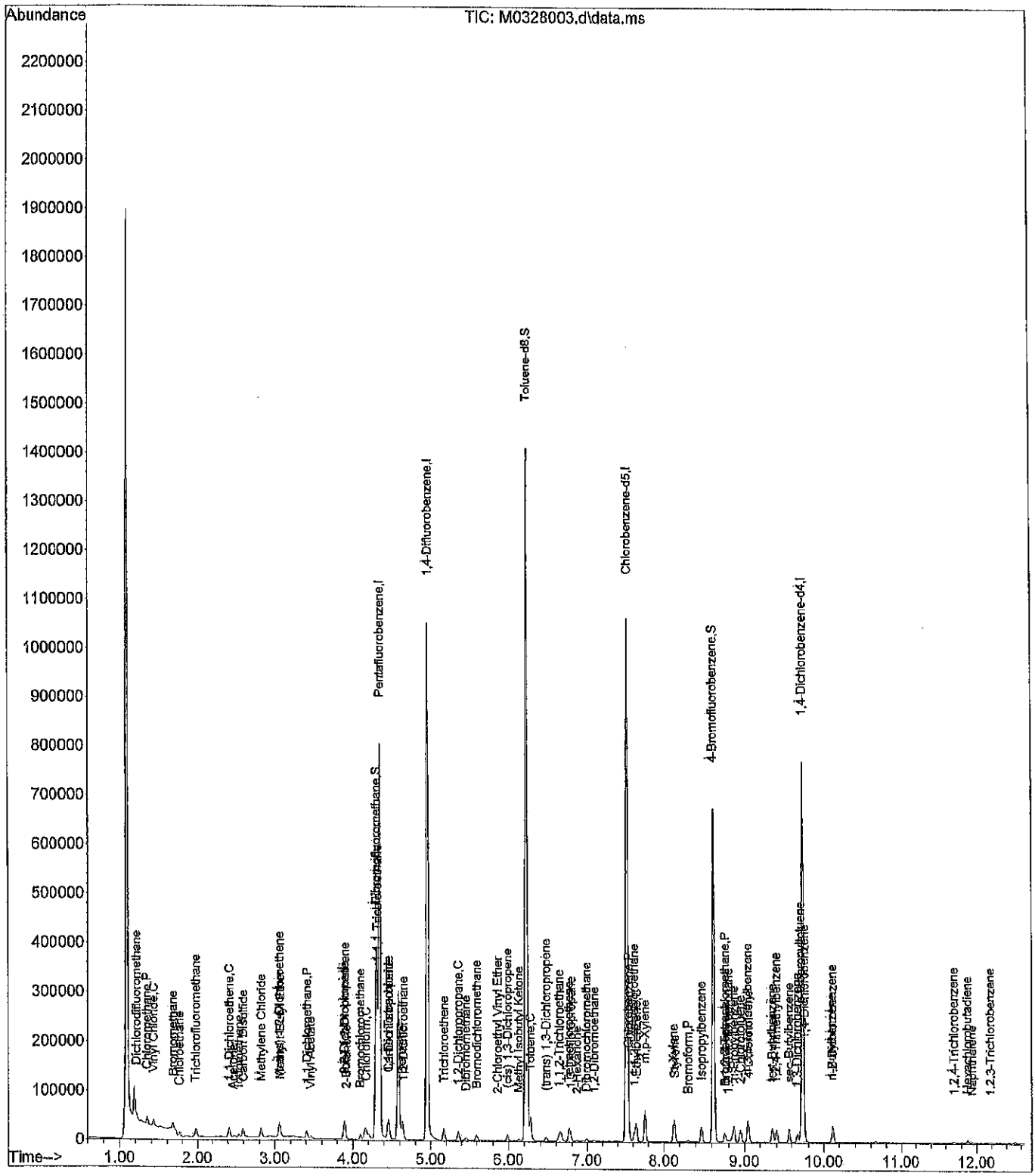
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SP 3.8674

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	481933	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	739712	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	582356	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	231509	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	217611	10.05	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.50%				
36) Toluene-d8	6.220	98	864840	9.94	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.40%				
54) 4-Bromofluorobenzene	8.622	95	253379	9.49	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.208	85	32485	0.86	ppb		98
3) Chloromethane	1.343	50	52278	0.91	ppb		94
4) Vinyl Chloride	1.428	62	43937	0.93	ppb		97
5) Bromomethane	1.684	96	23394	1.06	ppb		100
6) Chloroethane	1.769	64	23889	0.96	ppb		100
7) Trichlorofluoromethane	1.977	101	49091	0.95	ppb		97
8) 1,1-Dichloroethene	2.416	61	52907	0.97	ppb		100
9) Acetone	2.470	43	4405	0.76	ppb		99
10) Iodomethane	2.537	142	25915	1.10	ppb		95
11) Carbon Disulfide	2.592	76	83153	0.97	ppb		100
12) Methylene Chloride	2.824	49	46955	0.99	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	52507	0.97	ppb		97
14) Methyl t-Butyl Ether	3.068	73	34289	0.98	ppb		96
15) 1,1-Dichloroethane	3.409	63	61308	0.98	ppb		99
16) Vinyl Acetate	3.458	43	29613	1.27	ppb		98
17) 2,2-Dichloropropane	3.891	77	40125	0.98	ppb		97
18) (cis) 1,2-Dichloroethene	3.897	61	57200	0.99	ppb		99
19) 2-Butanone	3.921	43	5999	1.04	ppb		92
20) Bromochloromethane	4.098	130	11861	0.97	ppb		99
21) Chloroform	4.165	83	48474	0.99	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	47516	0.98	ppb	#	1
24) Carbon Tetrachloride	4.458	117	43733	0.97	ppb		94
25) 1,1-Dichloropropene	4.452	75	39817	0.96	ppb		97
26) Benzene	4.629	78	106694	0.99	ppb		99
27) 1,2-Dichloroethane	4.641	62	30108	1.00	ppb		99
29) Trichloroethene	5.171	130	30865	0.98	ppb		99
30) 1,2-Dichloropropane	5.360	63	29302	0.98	ppb		100
31) Dibromomethane	5.464	174	9426	0.98	ppb		96
32) Bromodichloromethane	5.598	83	30058	1.02	ppb		97
33) 2-Chloroethyl Vinyl Ether	5.860	63	1418	3.82	ppb		99
34) (cis) 1,3-Dichloropropene	5.982	75	28003	0.90	ppb		98
35) Methyl Isobutyl Ketone	6.122	43	9833	0.91	ppb		97
37) Toluene	6.275	91	116964	0.97	ppb		97
39) (trans) 1,3-Dichloropr...	6.470	75	18996	0.93	ppb		96
40) 1,1,2-Trichloroethane	6.634	97	11672	0.96	ppb		94
41) Tetrachloroethene	6.768	166	31504	0.98	ppb		97
42) 1,3-Dichloropropane	6.787	76	20143	0.94	ppb		99
43) 2-Hexanone	6.866	43	7271	1.02	ppb	#	92
44) Dibromochloromethane	6.988	129	15481	0.97	ppb		95

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

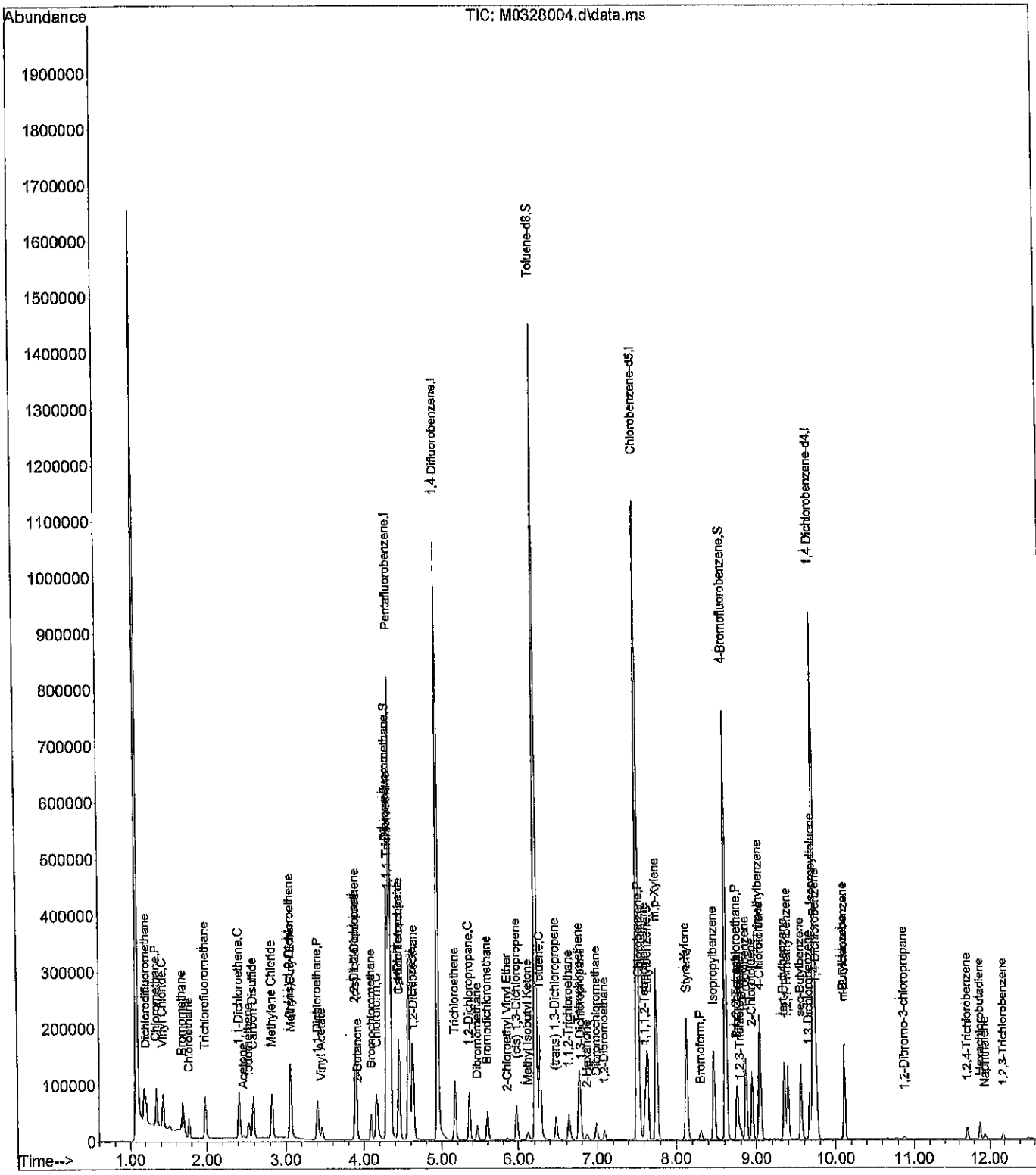
Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.091	107	10813	1.03	ppb		89
46) Chlorobenzene	7.543	112	62839	0.97	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	20602	0.97	ppb		97
48) Ethylbenzene	7.646	91	116277	0.89	ppb		100
49) m,p-Xylene	7.756	91	173593	1.77	ppb		100
50) o-Xylene	8.128	91	79577	0.88	ppb		99
51) Styrene	8.140	104	57652	0.86	ppb		100
52) Bromoform	8.311	173	7371	0.89	ppb		96
53) Isopropylbenzene	8.475	105	97419	0.85	ppb		98
56) Bromobenzene	8.762	156	20310	1.04	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	10308	1.07	ppb		93
58) 1,2,3-Trichloropropane	8.798	75	7814	1.06	ppb	#	100
59) n-Propylbenzene	8.872	91	114247	0.97	ppb		99
60) 2-Chlorotoluene	8.951	126	22971	1.01	ppb		99
61) 4-Chlorotoluene	9.055	126	22328	0.99	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	76170	0.87	ppb		99
63) tert-Butylbenzene	9.353	119	59923	0.88	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	73440	0.87	ppb		98
65) sec-Butylbenzene	9.567	105	89955	0.89	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	34360	0.92	ppb		100
67) p-Isopropyltoluene	9.713	119	68086	0.82	ppb		97
68) 1,4-Dichlorobenzene	9.756	146	34860	0.89	ppb		94
69) 1,2-Dichlorobenzene	10.115	146	24567	0.87	ppb		100
70) n-Butylbenzene	10.109	91	63817	0.81	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.883	157	932	0.72	ppb	#	64
72) 1,2,4-Trichlorobenzene	11.706	180	6168	0.46	ppb		90
73) Hexachlorobutadiene	11.883	225	6218	0.47	ppb		97
74) Naphthalene	11.944	128	7514	0.99	ppb	#	94
75) 1,2,3-Trichlorobenzene	12.188	180	3448	0.52	ppb		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	479547	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	741239	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	592815	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	240183	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	223417	10.37	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.70%				
36) Toluene-d8	6.220	98	874445	10.03	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.30%				
54) 4-Bromofluorobenzene	8.622	95	264503	9.74	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	71435	1.89	ppb		100
3) Chloromethane	1.343	50	111552	1.95	ppb		100
4) Vinyl Chloride	1.428	62	94040	2.00	ppb		99
5) Bromomethane	1.690	96	44871	2.05	ppb		99
6) Chloroethane	1.769	64	48789	1.97	ppb		96
7) Trichlorofluoromethane	1.977	101	101236	1.97	ppb		99
8) 1,1-Dichloroethene	2.416	61	107339	1.98	ppb		100
9) Acetone	2.470	43	9060	2.24	ppb		96
10) Iodomethane	2.538	142	60687	2.01	ppb		99
11) Carbon Disulfide	2.592	76	171279	2.00	ppb		97
12) Methylene Chloride	2.824	49	93388	1.98	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	110387	2.06	ppb		100
14) Methyl t-Butyl Ether	3.068	73	70253	2.02	ppb		98
15) 1,1-Dichloroethane	3.409	63	125922	2.02	ppb		98
16) Vinyl Acetate	3.458	43	54537	1.97	ppb		98
17) 2,2-Dichloropropane	3.891	77	80592	1.97	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	114722	1.99	ppb		99
19) 2-Butanone	3.921	43	12367	2.16	ppb		91
20) Bromochloromethane	4.098	130	24764	2.04	ppb		97
21) Chloroform	4.165	83	98372	2.01	ppb		98
22) 1,1,1-Trichloroethane	4.318	97	93941	1.95	ppb	#	1
24) Carbon Tetrachloride	4.458	117	88301	1.97	ppb		100
25) 1,1-Dichloropropene	4.452	75	82043	1.99	ppb		100
26) Benzene	4.629	78	213449	1.99	ppb		100
27) 1,2-Dichloroethane	4.641	62	61512	2.06	ppb		99
29) Trichloroethene	5.171	130	64112	2.02	ppb		93
30) 1,2-Dichloropropane	5.360	63	59895	2.01	ppb		100
31) Dibromomethane	5.464	174	20052	2.08	ppb		99
32) Bromodichloromethane	5.598	83	59547	2.02	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	3284	6.24	ppb		100
34) (cis) 1,3-Dichloropropene	5.982	75	59196	1.90	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	22165	2.05	ppb		98
37) Toluene	6.275	91	232630	1.92	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	40523	1.94	ppb		100
40) 1,1,2-Trichloroethane	6.634	97	23818	1.92	ppb		94
41) Tetrachloroethene	6.768	166	63251	1.94	ppb		98
42) 1,3-Dichloropropane	6.787	76	43185	1.98	ppb		99
43) 2-Hexanone	6.866	43	13779	1.89	ppb		99
44) Dibromochloromethane	6.988	129	31574	1.95	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

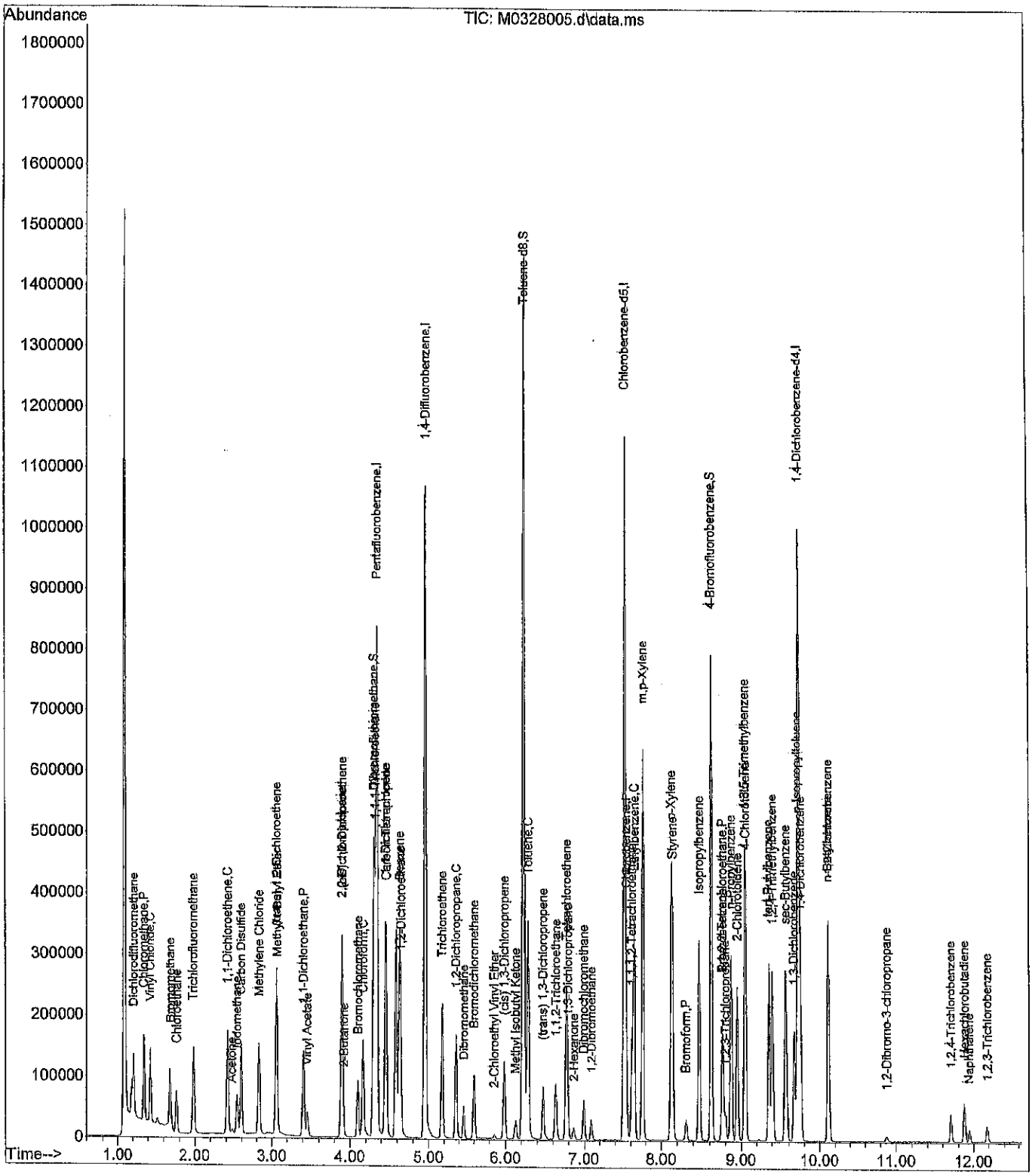
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	1,2-Dibromoethane	7.092	107	22108	2.07	ppb		94
46)	Chlorobenzene	7.543	112	126905	1.93	ppb		98
47)	1,1,1,2-Tetrachloroethane	7.616	133	40634	1.89	ppb		97
48)	Ethylbenzene	7.646	91	244080	1.84	ppb		99
49)	m,p-Xylene	7.756	91	366249	3.67	ppb		100
50)	o-Xylene	8.128	91	168553	1.82	ppb		99
51)	Styrene	8.140	104	125222	1.84	ppb		100
52)	Bromoform	8.311	173	15623	1.86	ppb		98
53)	Isopropylbenzene	8.475	105	207918	1.79	ppb		99
56)	Bromobenzene	8.762	156	41070	2.02	ppb		98
57)	1,1,2,2-Tetrachloroethane	8.762	83	20399	2.05	ppb		97
58)	1,2,3-Trichloropropane	8.799	75	17704	2.32	ppb	#	100
59)	n-Propylbenzene	8.872	91	236825	1.94	ppb		99
60)	2-Chlorotoluene	8.951	126	46452	1.98	ppb		97
61)	4-Chlorotoluene	9.055	126	46002	1.98	ppb		95
62)	1,3,5-Trimethylbenzene	9.042	105	172160	1.90	ppb		100
63)	tert-Butylbenzene	9.353	119	133577	1.88	ppb		98
64)	1,2,4-Trimethylbenzene	9.402	105	156865	1.80	ppb		98
65)	sec-Butylbenzene	9.567	105	191336	1.83	ppb		100
66)	1,3-Dichlorobenzene	9.670	146	73967	1.92	ppb		96
67)	p-Isopropyltoluene	9.713	119	152932	1.78	ppb		100
68)	1,4-Dichlorobenzene	9.756	146	76190	1.87	ppb		96
69)	1,2-Dichlorobenzene	10.115	146	52952	1.80	ppb		99
70)	n-Butylbenzene	10.109	91	135827	1.67	ppb		98
71)	1,2-Dibromo-3-chloropr...	10.883	157	2368	1.76	ppb		98
72)	1,2,4-Trichlorobenzene	11.706	180	14738	1.05	ppb		94
73)	Hexachlorobutadiene	11.883	225	13288	0.97	ppb		99
74)	Naphthalene	11.944	128	16224	1.48	ppb		97
75)	1,2,3-Trichlorobenzene	12.188	180	8510	1.04	ppb		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	487403	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	747722	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	596122	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	250793	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	226293	10.34	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.40%				
36) Toluene-d8	6.220	98	883353	10.04	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.40%				
54) 4-Bromofluorobenzene	8.616	95	269266	9.86	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	175706	4.58	ppb		100
3) Chloromethane	1.343	50	272665	4.68	ppb		99
4) Vinyl Chloride	1.428	62	233677	4.89	ppb		100
5) Bromomethane	1.684	96	107522	4.84	ppb		99
6) Chloroethane	1.770	64	119788	4.76	ppb		100
7) Trichlorofluoromethane	1.977	101	251859	4.81	ppb		99
8) 1,1-Dichloroethene	2.416	61	271961	4.94	ppb		98
9) Acetone	2.471	43	19243	5.36	ppb		100
10) Iodomethane	2.538	142	171354	4.82	ppb		99
11) Carbon Disulfide	2.593	76	428232	4.92	ppb		100
12) Methylene Chloride	2.824	49	227594	4.76	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	265907	4.87	ppb		98
14) Methyl t-Butyl Ether	3.068	73	176485	4.99	ppb		98
15) 1,1-Dichloroethane	3.409	63	313941	4.94	ppb		98
16) Vinyl Acetate	3.458	43	132036	4.05	ppb		100
17) 2,2-Dichloropropane	3.891	77	198435	4.78	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	289717	4.95	ppb		100
19) 2-Butanone	3.922	43	29280	5.04	ppb		95
20) Bromochloromethane	4.098	130	61061	4.94	ppb		97
21) Chloroform	4.165	83	248538	5.00	ppb		100
22) 1,1,1-Trichloroethane	4.318	97	236699	4.83	ppb	#	48
24) Carbon Tetrachloride	4.458	117	217779	4.78	ppb		99
25) 1,1-Dichloropropene	4.452	75	201088	4.81	ppb		99
26) Benzene	4.629	78	539722	4.94	ppb		100
27) 1,2-Dichloroethane	4.641	62	152728	5.02	ppb		100
29) Trichloroethene	5.171	130	158883	4.97	ppb		97
30) 1,2-Dichloropropane	5.360	63	149194	4.96	ppb		98
31) Dibromomethane	5.464	174	48876	5.02	ppb		96
32) Bromodichloromethane	5.598	83	146557	4.93	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	7478	11.60	ppb	#	90
34) (cis) 1,3-Dichloropropene	5.982	75	153320	4.87	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	53853	4.94	ppb		96
37) Toluene	6.275	91	581598	4.77	ppb		98
39) (trans) 1,3-Dichloropr...	6.470	75	101688	4.84	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	59584	4.77	ppb		96
41) Tetrachloroethene	6.769	166	153550	4.68	ppb		99
42) 1,3-Dichloropropane	6.787	76	109881	5.00	ppb		100
43) 2-Hexanone	6.866	43	36571	4.99	ppb	#	97
44) Dibromochloromethane	6.988	129	80368	4.94	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

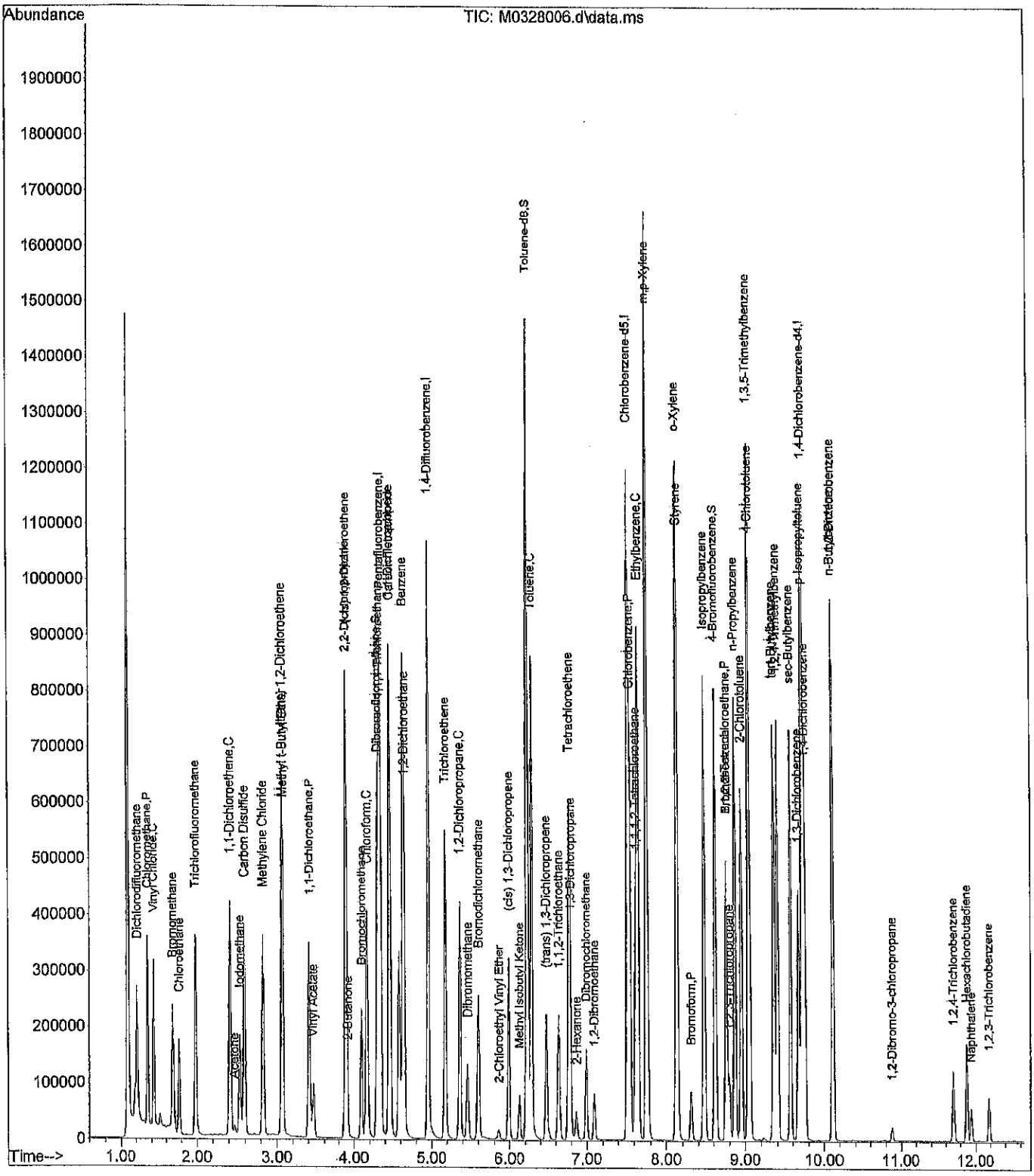
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	55408	5.15	ppb		94
46) Chlorobenzene	7.543	112	312120	4.72	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	105314	4.86	ppb		100
48) Ethylbenzene	7.646	91	615237	4.61	ppb		100
49) m,p-Xylene	7.756	91	948174	9.45	ppb		100
50) o-Xylene	8.128	91	431278	4.64	ppb		99
51) Styrene	8.140	104	328797	4.81	ppb		100
52) Bromoform	8.311	173	41308	4.89	ppb		97
53) Isopropylbenzene	8.476	105	537723	4.60	ppb		100
56) Bromobenzene	8.762	156	106237	5.00	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	53508	5.15	ppb		95
58) 1,2,3-Trichloropropane	8.799	75	42362	5.32	ppb	#	100
59) n-Propylbenzene	8.872	91	619715	4.86	ppb		99
60) 2-Chlorotoluene	8.951	126	118651	4.84	ppb		99
61) 4-Chlorotoluene	9.055	126	119653	4.92	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	448413	4.74	ppb		99
63) tert-Butylbenzene	9.353	119	348521	4.70	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	423815	4.65	ppb		100
65) sec-Butylbenzene	9.567	105	506584	4.64	ppb		100
66) 1,3-Dichlorobenzene	9.670	146	186299	4.62	ppb		98
67) p-Isopropyltoluene	9.713	119	398736	4.45	ppb		98
68) 1,4-Dichlorobenzene	9.756	146	196227	4.62	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	139284	4.54	ppb		98
70) n-Butylbenzene	10.109	91	366974	4.31	ppb		100
71) 1,2-Dibromo-3-chloropr...	10.884	157	6040	4.30	ppb		92
72) 1,2,4-Trichlorobenzene	11.707	180	40513	2.76	ppb		97
73) Hexachlorobutadiene	11.883	225	36435	2.56	ppb		98
74) Naphthalene	11.944	128	46161	3.10	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	25509	2.71	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	489227	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	759757	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	599575	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246718	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	222542	10.13	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 101.30%				
36) Toluene-d8	6.220	98	893363	10.00	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.00%				
54) 4-Bromofluorobenzene	8.616	95	271986	9.90	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	358326	9.31	ppb		100
3) Chloromethane	1.343	50	555937	9.51	ppb		99
4) Vinyl Chloride	1.428	62	483276	10.07	ppb		100
5) Bromomethane	1.690	96	219911	9.85	ppb		100
6) Chloroethane	1.770	64	247386	9.79	ppb		100
7) Trichlorofluoromethane	1.977	101	523334	9.97	ppb		100
8) 1,1-Dichloroethene	2.416	61	557386	10.08	ppb		99
9) Acetone	2.471	43	34774	10.16	ppb		99
10) Iodomethane	2.538	142	368612	9.85	ppb		99
11) Carbon Disulfide	2.593	76	884927	10.14	ppb		99
12) Methylene Chloride	2.824	49	460832	9.60	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	560950	10.24	ppb		100
14) Methyl t-Butyl Ether	3.068	73	348111	9.80	ppb		99
15) 1,1-Dichloroethane	3.410	63	642292	10.08	ppb		100
16) Vinyl Acetate	3.458	43	253649	7.34	ppb		99
17) 2,2-Dichloropropane	3.897	77	412258	9.89	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	592869	10.09	ppb		99
19) 2-Butanone	3.922	43	56987	9.78	ppb		98
20) Bromochloromethane	4.098	130	125464	10.11	ppb		99
21) Chloroform	4.165	83	500093	10.03	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	488995	9.94	ppb		98
24) Carbon Tetrachloride	4.458	117	448921	9.82	ppb		98
25) 1,1-Dichloropropene	4.452	75	415631	9.89	ppb		99
26) Benzene	4.629	78	1106258	10.09	ppb		99
27) 1,2-Dichloroethane	4.641	62	310436	10.17	ppb		100
29) Trichloroethene	5.171	130	328989	10.12	ppb		99
30) 1,2-Dichloropropane	5.360	63	301712	9.86	ppb		99
31) Dibromomethane	5.464	174	97928	9.89	ppb		99
32) Bromodichloromethane	5.598	83	300904	9.96	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	14914	20.86	ppb	#	88
34) (cis) 1,3-Dichloropropene	5.982	75	316852	9.91	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	105947	9.57	ppb		99
37) Toluene	6.275	91	1190855	9.61	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	217027	10.28	ppb		98
40) 1,1,2-Trichloroethane	6.635	97	120206	9.58	ppb		97
41) Tetrachloroethene	6.769	166	321992	9.76	ppb		99
42) 1,3-Dichloropropane	6.787	76	222149	10.05	ppb		99
43) 2-Hexanone	6.866	43	70181	9.53	ppb		98
44) Dibromochloromethane	6.988	129	163728	10.00	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

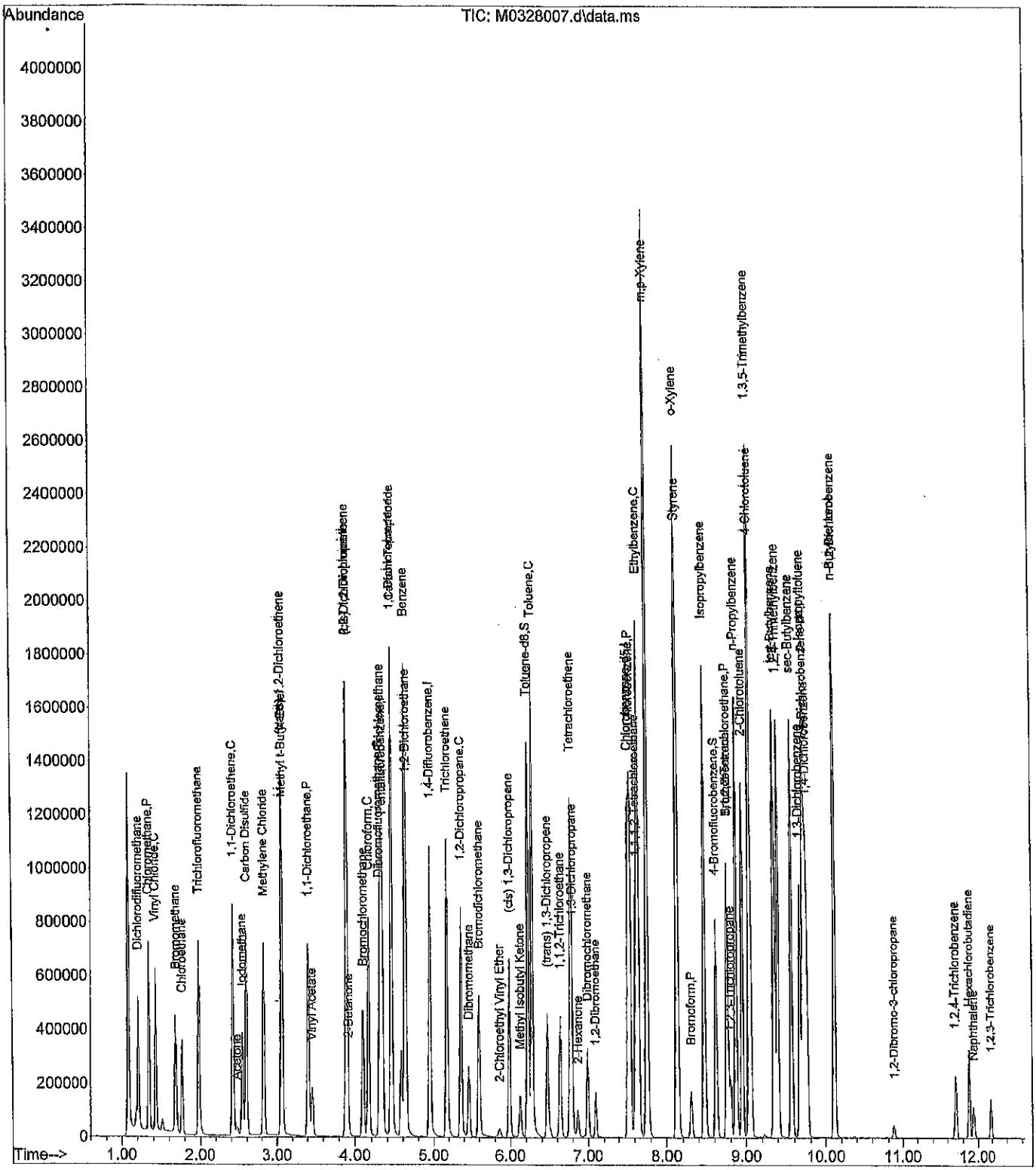
Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	1,2-Dibromoethane	7.092	107	109725	10.14	ppb		97
46)	Chlorobenzene	7.543	112	647533	9.74	ppb		100
47)	1,1,1,2-Tetrachloroethane	7.616	133	217287	9.97	ppb		98
48)	Ethylbenzene	7.646	91	1313400	9.79	ppb		100
49)	m,p-Xylene	7.756	91	1993585	19.75	ppb		99
50)	o-Xylene	8.128	91	903632	9.66	ppb		98
51)	Styrene	8.140	104	688761	10.02	ppb		100
52)	Bromoform	8.311	173	83704	9.85	ppb		97
53)	Isopropylbenzene	8.476	105	1147125	9.75	ppb		100
56)	Bromobenzene	8.762	156	215852	10.33	ppb		98
57)	1,1,2,2-Tetrachloroethane	8.762	83	102118	9.98	ppb		99
58)	1,2,3-Trichloropropane	8.799	75	82731	10.56	ppb	#	100
59)	n-Propylbenzene	8.872	91	1318888	10.52	ppb		99
60)	2-Chlorotoluene	8.951	126	252805	10.48	ppb		98
61)	4-Chlorotoluene	9.055	126	249463	10.43	ppb		100
62)	1,3,5-Trimethylbenzene	9.043	105	956130	10.27	ppb		99
63)	tert-Butylbenzene	9.353	119	765683	10.50	ppb		99
64)	1,2,4-Trimethylbenzene	9.402	105	885124	9.88	ppb		99
65)	sec-Butylbenzene	9.567	105	1090861	10.15	ppb		99
66)	1,3-Dichlorobenzene	9.670	146	380986	9.60	ppb		99
67)	p-Isopropyltoluene	9.713	119	856914	9.72	ppb		99
68)	1,4-Dichlorobenzene	9.756	146	396253	9.49	ppb		99
69)	1,2-Dichlorobenzene	10.116	146	278161	9.21	ppb		99
70)	n-Butylbenzene	10.109	91	770172	9.19	ppb		100
71)	1,2-Dibromo-3-chloropr...	10.884	157	12386	8.97	ppb		87
72)	1,2,4-Trichlorobenzene	11.701	180	77070	5.34	ppb		99
73)	Hexachlorobutadiene	11.883	225	69390	4.95	ppb		98
74)	Naphthalene	11.944	128	90183	5.61	ppb		98
75)	1,2,3-Trichlorobenzene	12.182	180	49016	5.15	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	497601	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	768052	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	607515	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	252975	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	229055	10.25	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.50%				
36) Toluene-d8	6.220	98	909694	10.07	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.70%				
54) 4-Bromofluorobenzene	8.622	95	277129	9.95	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.50%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	1121507	28.64	ppb		99
3) Chloromethane	1.343	50	1561206	26.25	ppb		100
4) Vinyl Chloride	1.428	62	1328160	27.20	ppb		100
5) Bromomethane	1.684	96	581881	25.64	ppb		99
6) Chloroethane	1.770	64	655545	25.52	ppb		99
7) Trichlorofluoromethane	1.977	101	1389716	26.02	ppb		99
8) 1,1-Dichloroethene	2.416	61	1474120	26.22	ppb		99
9) Acetone	2.471	43	87736	26.13	ppb		98
10) Iodomethane	2.538	142	1029759	26.31	ppb		98
11) Carbon Disulfide	2.593	76	2384649	26.86	ppb		99
12) Methylene Chloride	2.824	49	1201171	24.59	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	1480100	26.56	ppb		99
14) Methyl t-Butyl Ether	3.068	73	917317	25.39	ppb		99
15) 1,1-Dichloroethane	3.410	63	1697554	26.18	ppb		99
16) Vinyl Acetate	3.458	43	677905	18.53	ppb		99
17) 2,2-Dichloropropane	3.897	77	1075056	25.36	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	1593641	26.66	ppb		100
19) 2-Butanone	3.922	43	148430	25.04	ppb		98
20) Bromochloromethane	4.098	130	328851	26.05	ppb		99
21) Chloroform	4.165	83	1322341	26.07	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	1293343	25.86	ppb	#	68
24) Carbon Tetrachloride	4.458	117	1213430	26.09	ppb		100
25) 1,1-Dichloropropene	4.452	75	1117703	26.16	ppb		100
26) Benzene	4.629	78	2935857	26.34	ppb		99
27) 1,2-Dichloroethane	4.641	62	810173	26.11	ppb		99
29) Trichloroethene	5.171	130	884095	26.91	ppb		97
30) 1,2-Dichloropropane	5.360	63	807229	26.10	ppb		99
31) Dibromomethane	5.464	174	260025	25.99	ppb		98
32) Bromodichloromethane	5.598	83	801089	26.22	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	43191	56.05	ppb	#	86
34) (cis) 1,3-Dichloropropene	5.982	75	878404	27.19	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	291919	26.08	ppb		98
37) Toluene	6.281	91	3203081	25.57	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	580541	27.13	ppb		98
40) 1,1,2-Trichloroethane	6.634	97	324195	25.49	ppb		96
41) Tetrachloroethene	6.769	166	854911	25.57	ppb		100
42) 1,3-Dichloropropane	6.787	76	586797	26.20	ppb		100
43) 2-Hexanone	6.866	43	200018	26.80	ppb		100
44) Dibromochloromethane	6.988	129	444656	26.79	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

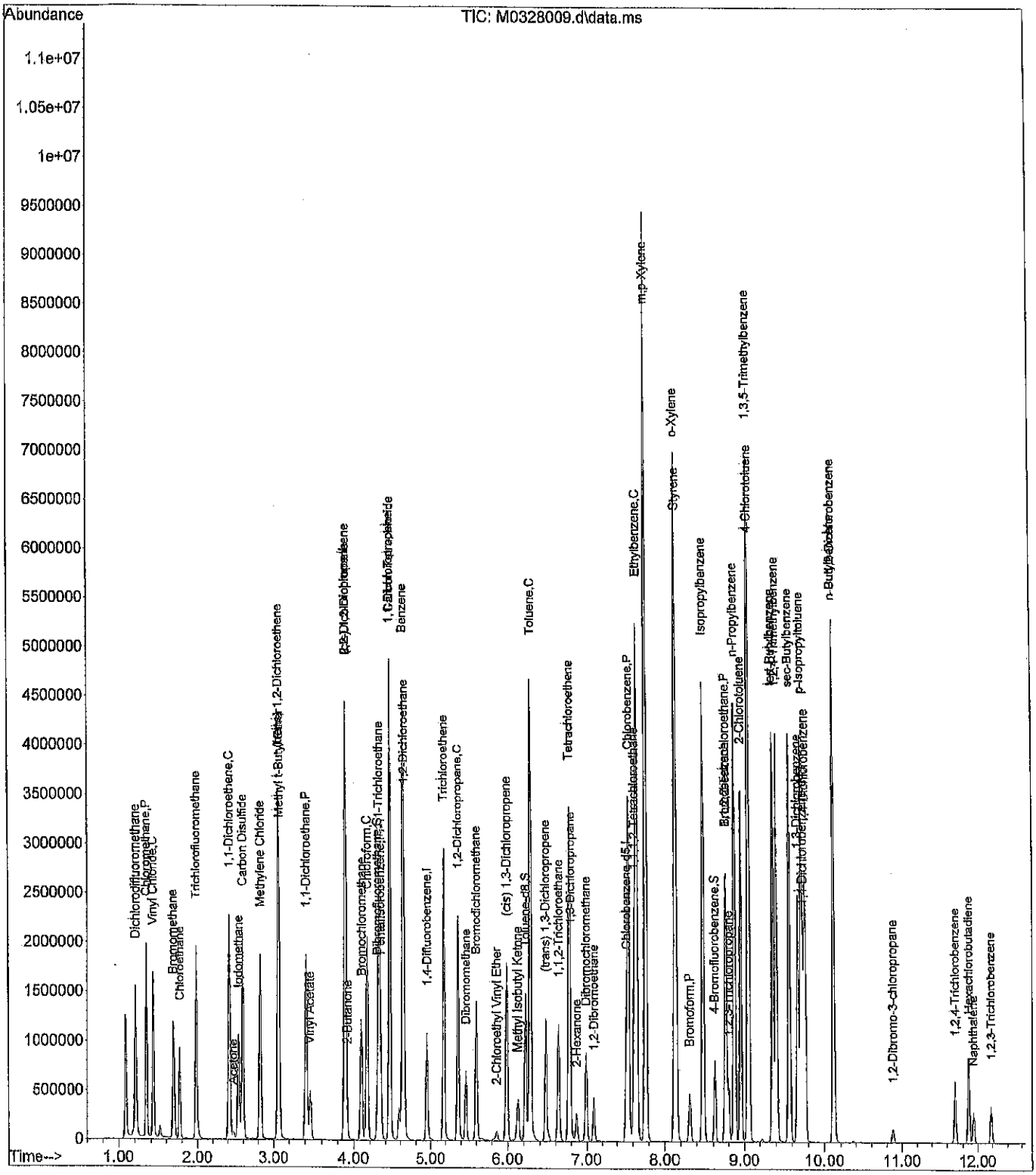
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	292386	26.66	ppb		99
46) Chlorobenzene	7.543	112	1729622	25.68	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	576009	26.08	ppb		99
48) Ethylbenzene	7.646	91	3585151	26.38	ppb		99
49) m,p-Xylene	7.756	91	5434085	53.13	ppb		99
50) o-Xylene	8.128	91	2466541	26.02	ppb		99
51) Styrene	8.140	104	1887824	27.11	ppb		100
52) Bromoform	8.311	173	232242	26.97	ppb		99
53) Isopropylbenzene	8.476	105	3134059	26.30	ppb		100
56) Bromobenzene	8.762	156	592396	27.65	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	278507	26.56	ppb		97
58) 1,2,3-Trichloropropane	8.799	75	221012	27.51	ppb	#	100
59) n-Propylbenzene	8.872	91	3571653	27.78	ppb		100
60) 2-Chlorotoluene	8.951	126	685447	27.70	ppb		98
61) 4-Chlorotoluene	9.055	126	667612	27.22	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	2605407	27.30	ppb		99
63) tert-Butylbenzene	9.353	119	2039103	27.27	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	2384690	25.96	ppb		100
65) sec-Butylbenzene	9.567	105	2940858	26.70	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	1018598	25.04	ppb		99
67) p-Isopropyltoluene	9.713	119	2342593	25.92	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	1061821	24.81	ppb		99
69) 1,2-Dichlorobenzene	10.116	146	755745	24.41	ppb		100
70) n-Butylbenzene	10.109	91	2095716	24.39	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	35703	25.21	ppb		95
72) 1,2,4-Trichlorobenzene	11.707	180	210257	14.22	ppb		98
73) Hexachlorobutadiene	11.883	225	183636	12.77	ppb		99
74) Naphthalene	11.944	128	250957	14.31	ppb		100
75) 1,2,3-Trichlorobenzene	12.182	180	124247	12.52	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	522687	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	794397	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	648063	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	271326	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	239856	10.22	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.20%				
36) Toluene-d8	6.220	98	954439	10.21	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 102.10%				
54) 4-Bromofluorobenzene	8.622	95	292946	9.86	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	2263976	55.05	ppb		99
3) Chloromethane	1.343	50	3189613	51.05	ppb		100
4) Vinyl Chloride	1.428	62	2726670	53.16	ppb		99
5) Bromomethane	1.690	96	1188547	49.85	ppb		99
6) Chloroethane	1.769	64	1341140	49.70	ppb		99
7) Trichlorofluoromethane	1.977	101	2822826	50.31	ppb		100
8) 1,1-Dichloroethene	2.416	61	3002296	50.83	ppb		98
9) Acetone	2.477	43	169002	48.45	ppb		98
10) Iodomethane	2.538	142	2055765	49.63	ppb		97
11) Carbon Disulfide	2.592	76	4931028	52.87	ppb		100
12) Methylene Chloride	2.824	49	2461328	47.97	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	3034587	51.85	ppb		99
14) Methyl t-Butyl Ether	3.068	73	1954424	51.50	ppb		99
15) 1,1-Dichloroethane	3.409	63	3499793	51.39	ppb		99
16) Vinyl Acetate	3.464	43	1988880	50.94	ppb		99
17) 2,2-Dichloropropane	3.897	77	2173704	48.82	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	3306469	52.65	ppb		100
19) 2-Butanone	3.921	43	294527	47.30	ppb		98
20) Bromochloromethane	4.098	130	687090	51.81	ppb		98
21) Chloroform	4.165	83	2720414	51.07	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	2654495	50.52	ppb	#	58
24) Carbon Tetrachloride	4.458	117	2489450	50.96	ppb		100
25) 1,1-Dichloropropene	4.458	75	2319305	51.68	ppb		99
26) Benzene	4.629	78	6103832	52.13	ppb		98
27) 1,2-Dichloroethane	4.641	62	1656157	50.81	ppb		99
29) Trichloroethene	5.171	130	1726990	50.82	ppb		99
30) 1,2-Dichloropropane	5.360	63	1670462	52.23	ppb		99
31) Dibromomethane	5.464	174	532261	51.43	ppb		98
32) Bromodichloromethane	5.598	83	1679673	53.15	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	102169	125.64	ppb	#	89
34) (cis) 1,3-Dichloropropene	5.982	75	1826617	54.67	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	644949	55.71	ppb		98
37) Toluene	6.281	91	6709086	51.79	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	1239067	54.28	ppb		98
40) 1,1,2-Trichloroethane	6.634	97	674955	49.75	ppb		97
41) Tetrachloroethene	6.768	166	1764560	49.48	ppb		99
42) 1,3-Dichloropropane	6.787	76	1220959	51.11	ppb		99
43) 2-Hexanone	6.866	43	420528	52.83	ppb		98
44) Dibromochloromethane	6.988	129	950233	53.68	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

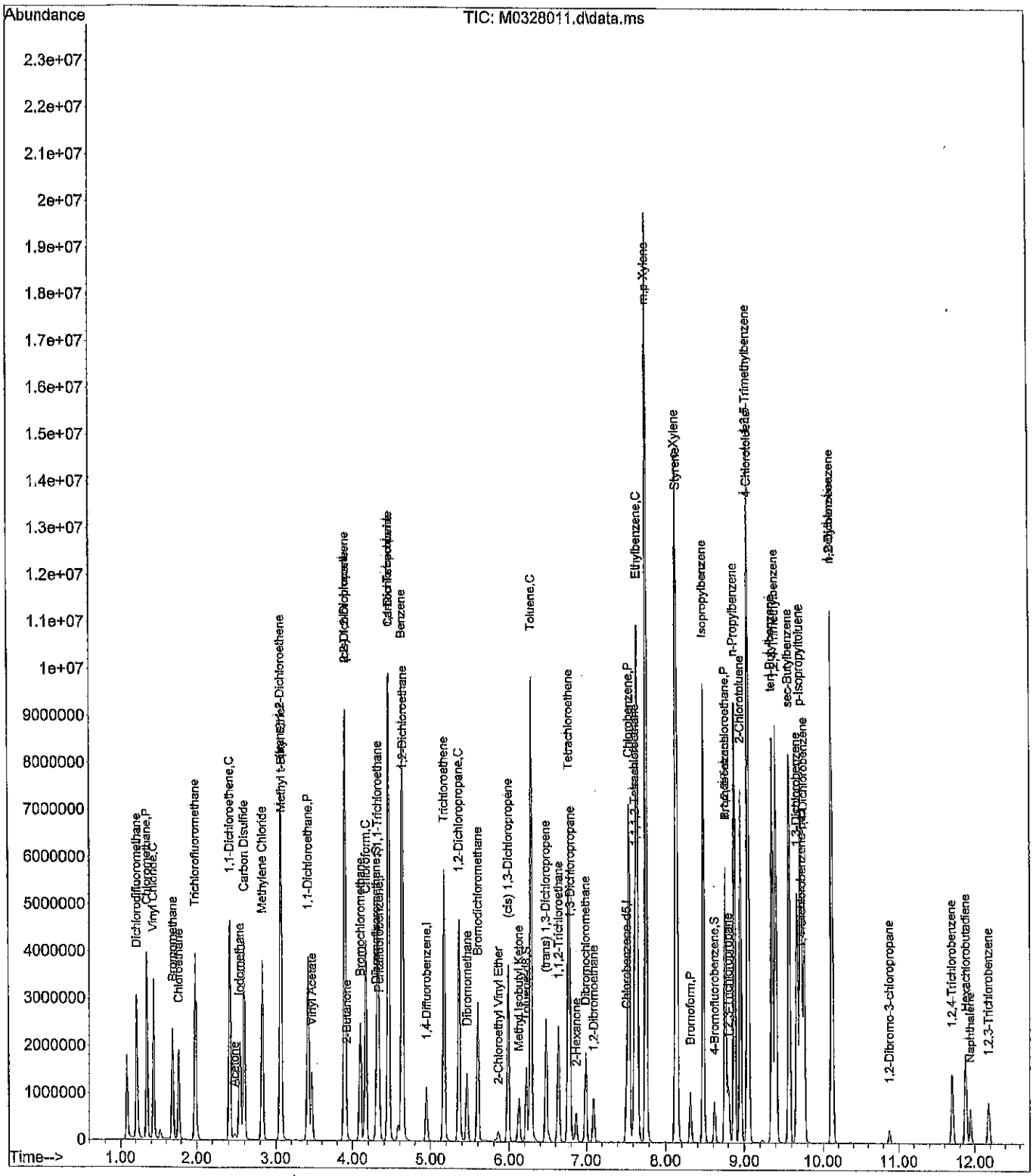
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	599789	51.27	ppb		100
46) Chlorobenzene	7.543	112	3639368	50.66	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.622	133	1226756	52.08	ppb		99
48) Ethylbenzene	7.646	91	7483755	51.62	ppb		99
49) m,p-Xylene	7.756	91	11469508	105.12	ppb		99
50) o-Xylene	8.128	91	5194099	51.37	ppb		99
51) Styrene	8.140	104	4005725	53.92	ppb		100
52) Bromoform	8.311	173	511778	55.72	ppb		97
53) Isopropylbenzene	8.475	105	6542524	51.46	ppb		100
56) Bromobenzene	8.762	156	1232656	53.64	ppb		100
57) 1,1,2,2-Tetrachloroethane	8.762	83	621739	55.28	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	462707	53.70	ppb	#	100
59) n-Propylbenzene	8.872	91	7452772	54.05	ppb		99
60) 2-Chlorotoluene	8.951	126	1400536	52.77	ppb		98
61) 4-Chlorotoluene	9.055	126	1411549	53.66	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	5458502	53.32	ppb		100
63) tert-Butylbenzene	9.353	119	4243887	52.91	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	5034056	51.09	ppb		100
65) sec-Butylbenzene	9.567	105	6127669	51.87	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	2161176	49.54	ppb		99
67) p-Isopropyltoluene	9.713	119	4907139	50.62	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	2245473	48.92	ppb		98
69) 1,2-Dichlorobenzene	10.115	146	1619215	48.77	ppb		100
70) n-Butylbenzene	10.115	91	4472832	48.54	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.883	157	75602	49.77	ppb		94
72) 1,2,4-Trichlorobenzene	11.700	180	482632	30.43	ppb		99
73) Hexachlorobutadiene	11.883	225	393787	25.53	ppb		98
74) Naphthalene	11.944	128	596197	31.03	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	286773	26.78	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	510461	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	773794	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	619866	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	260824	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	233640	10.05	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.50%			
36) Toluene-d8	6.220	98	922244	10.11	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 101.10%			
54) 4-Bromofluorobenzene	8.622	95	278743	10.13	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 101.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	329413	8.41	ppb	100
3) Chloromethane	1.343	50	597280	9.87	ppb	100
4) Vinyl Chloride	1.428	62	501584	9.84	ppb	100
5) Bromomethane	1.690	96	230195	9.50	ppb	98
6) Chloroethane	1.769	64	257346	9.62	ppb	99
7) Trichlorofluoromethane	1.977	101	559983	10.20	ppb	99
8) 1,1-Dichloroethene	2.416	61	639672	10.90	ppb	100
9) Acetone	2.483	43	36530	10.23	ppb	99
10) Iodomethane	2.538	142	373007	9.48	ppb	99
11) Carbon Disulfide	2.592	76	935588	10.03	ppb	100
12) Methylene Chloride	2.824	49	504778	10.00	ppb	99
13) (trans) 1,2-Dichloroet...	3.056	61	595161	10.07	ppb	99
14) Methyl t-Butyl Ether	3.068	73	395430	10.62	ppb	100
15) 1,1-Dichloroethane	3.409	63	704461	10.46	ppb	99
16) Vinyl Acetate	3.464	43	172935	6.08	ppb	100
17) 2,2-Dichloropropane	3.897	77	408962	9.51	ppb	100
18) (cis) 1,2-Dichloroethene	3.897	61	638476	10.27	ppb	100
19) 2-Butanone	3.921	43	58497	9.47	ppb	98
20) Bromochloromethane	4.098	130	139022	10.67	ppb	98
21) Chloroform	4.165	83	549665	10.33	ppb	99
22) 1,1,1-Trichloroethane	4.318	97	536813	10.46	ppb	95
24) Carbon Tetrachloride	4.458	117	499537	10.42	ppb	97
25) 1,1-Dichloropropene	4.452	75	448750	10.09	ppb	99
26) Benzene	4.629	78	1210361	10.35	ppb	100
27) 1,2-Dichloroethane	4.641	62	336423	10.39	ppb	99
29) Trichloroethene	5.171	130	378291	11.08	ppb	99
30) 1,2-Dichloropropane	5.360	63	326363	10.48	ppb	99
31) Dibromomethane	5.464	174	111837	11.18	ppb	99
32) Bromodichloromethane	5.598	83	338886	10.94	ppb	98
33) 2-Chloroethyl Vinyl Ether	5.860	63	15917	9.55	ppb	99
34) (cis) 1,3-Dichloropropene	5.982	75	343393	10.79	ppb	99
35) Methyl Isobutyl Ketone	6.122	43	110853	9.73	ppb	98
37) Toluene	6.281	91	1303383	10.35	ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	231090	10.59	ppb	100
40) 1,1,2-Trichloroethane	6.634	97	131800	10.05	ppb	99
41) Tetrachloroethene	6.769	166	351520	10.39	ppb	99
42) 1,3-Dichloropropane	6.787	76	240647	10.55	ppb	99
43) 2-Hexanone	6.866	43	73055	9.33	ppb	100
44) Dibromochloromethane	6.988	129	187880	11.08	ppb	98

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration

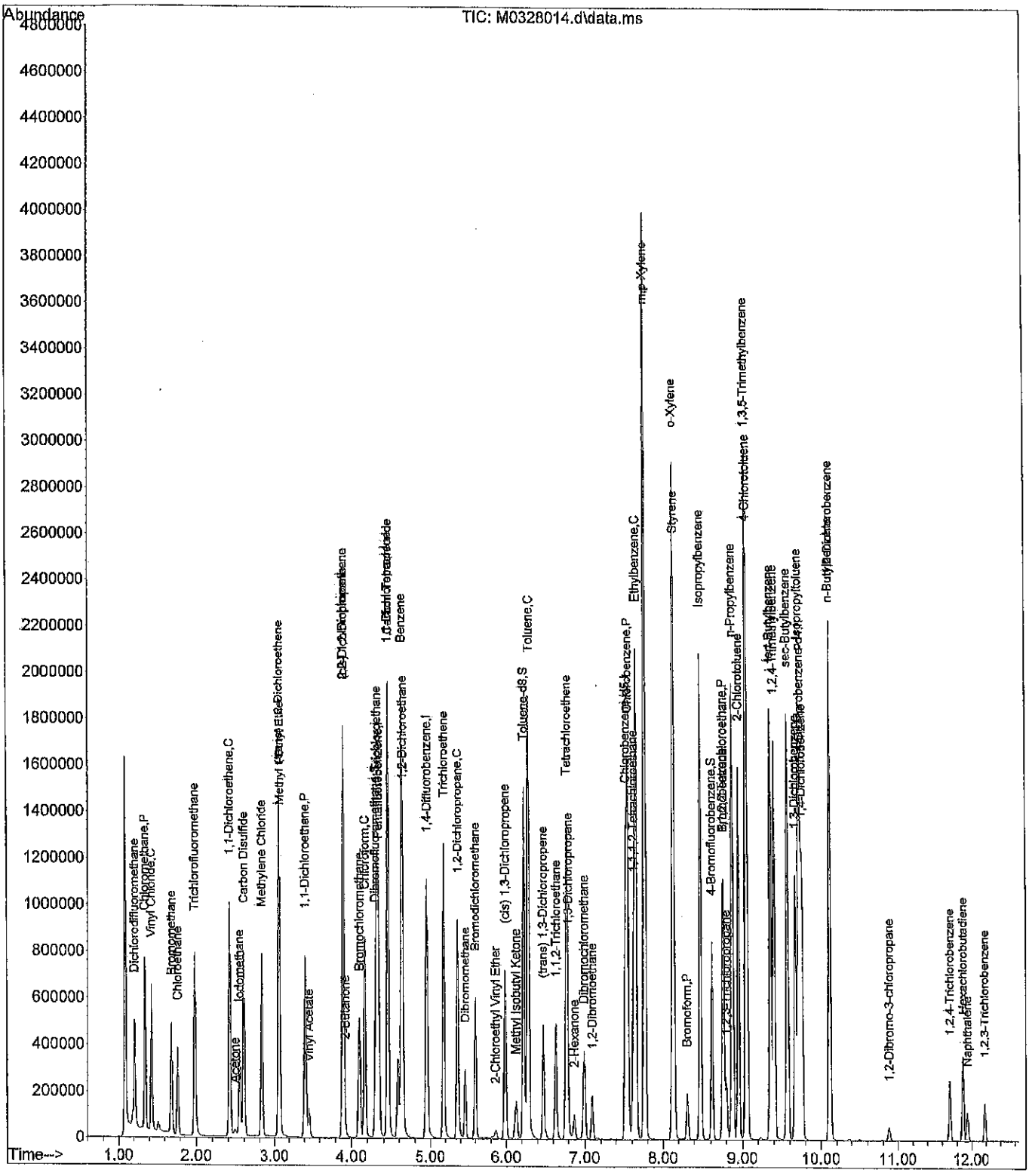
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	121746	10.62	ppb		99
46) Chlorobenzene	7.543	112	777358	11.26	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	235590	10.59	ppb		99
48) Ethylbenzene	7.646	91	1429843	10.55	ppb		100
49) m,p-Xylene	7.756	91	2249857	22.19	ppb		99
50) o-Xylene	8.128	91	1087120	11.73	ppb		100
51) Styrene	8.140	104	755347	10.94	ppb		100
52) Bromoform	8.311	173	92427	10.74	ppb		98
53) Isopropylbenzene	8.475	105	1357068	11.74	ppb		99
56) Bromobenzene	8.762	156	244612	10.36	ppb		97
57) 1,1,2,2-Tetrachloroethane	8.762	83	109511	9.58	ppb		96
58) 1,2,3-Trichloropropane	8.799	75	94450	10.47	ppb	#	100
59) n-Propylbenzene	8.872	91	1568963	11.28	ppb		99
60) 2-Chlorotoluene	8.951	126	303671	11.33	ppb		100
61) 4-Chlorotoluene	9.055	126	300275	11.41	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	1039946	10.55	ppb		99
63) tert-Butylbenzene	9.353	119	902330	11.62	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	957567	10.48	ppb		99
65) sec-Butylbenzene	9.567	105	1290528	11.52	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	459444	11.27	ppb		99
67) p-Isopropyltoluene	9.713	119	1006766	11.42	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	433737	10.18	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	343625	11.62	ppb		98
70) n-Butylbenzene	10.109	91	840590	10.44	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	14660	11.24	ppb		97
72) 1,2,4-Trichlorobenzene	11.707	180	86555	10.60	ppb		98
73) Hexachlorobutadiene	11.883	225	75185	9.84	ppb		98
74) Naphthalene	11.944	128	98546	10.16	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	52321	9.87	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418002.d
Acq On : 18 Apr 2014 7:26 am
Operator :
Sample : CCV0418W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 18 07:38:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	10.000	10.000	0.0	104	0.00
2		Dichlorodifluoromethane	10.000	8.514	14.9	93	0.00
3	P	Chloromethane	10.000	9.207	7.9	100	0.00
4	C	Vinyl Chloride	10.000	9.578	4.2#	101	0.00
5		Bromomethane	10.000	9.448	5.5	104	0.00
6		Chloroethane	10.000	9.673	3.3	104	0.00
7		Trichlorofluoromethane	10.000	9.815	1.9	103	0.00
8	C	1,1-Dichloroethene	10.000	10.568	-5.7#	111	0.00
9		Acetone	10.000	9.232	7.7	95	0.00
10		Iodomethane	10.000	9.442	5.6	100	0.00
11		Carbon Disulfide	10.000	10.617	-6.2	112	0.00
12		Methylene Chloride	10.000	9.689	3.1	106	0.00
13		(trans) 1,2-Dichloroethene	10.000	10.702	-7.0	112	0.00
14		Methyl t-Butyl Ether	10.000	8.874	11.3	95	0.00
15	P	1,1-Dichloroethane	10.000	10.460	-4.6	109	0.00
16		Vinyl Acetate	10.000	10.776	-7.8	120	0.00
17		2,2-Dichloropropane	10.000	10.482	-4.8	109	0.00
18		(cis) 1,2-Dichloroethene	10.000	10.357	-3.6	108	0.00
19		2-Butanone	10.000	8.712	12.9	94	0.00
20		Bromochloromethane	10.000	10.392	-3.9	108	0.00
21	C	Chloroform	10.000	9.813	1.9#	104	0.00
22		1,1,1-Trichloroethane	10.000	9.971	0.3	104	0.00
23	S	Dibromofluoromethane	10.000	8.008	19.9	83	0.00
24		Carbon Tetrachloride	10.000	10.221	-2.2	109	0.00
25		1,1-Dichloropropene	10.000	10.385	-3.8	111	0.00
26		Benzene	10.000	10.547	-5.5	111	0.00
27		1,2-Dichloroethane	10.000	9.093	9.1	95	0.00
28	I	1,4-Difluorobenzene	10.000	10.000	0.0	103	0.00
29		Trichloroethene	10.000	10.808	-8.1	113	0.00
30	C	1,2-Dichloropropane	10.000	10.283	-2.8#	107	0.00
31		Dibromomethane	10.000	10.225	-2.2	105	0.00
32		Bromodichloromethane	10.000	9.582	4.2	99	0.00
33		2-Chloroethyl Vinyl Ether	10.000	2.464	75.4#	28	0.00
34		(cis) 1,3-Dichloropropene	10.000	9.974	0.3	101	0.00
35		Methyl Isobutyl Ketone	10.000	9.031	9.7	98	0.00
36	S	Toluene-d8	10.000	10.030	-0.3	103	0.00
37	C	Toluene	10.000	10.465	-4.6#	112	0.00
38	I	Chlorobenzene-d5	10.000	10.000	0.0	105	0.00
39		(trans) 1,3-Dichloropropene	10.000	9.451	5.5	97	0.00
40		1,1,2-Trichloroethane	10.000	9.208	7.9	102	0.00
41		Tetrachloroethene	10.000	11.149	-11.5	119	0.00
42		1,3-Dichloropropane	10.000	9.436	5.6	99	0.00
43		2-Hexanone	10.000	7.787	22.1#	89	0.00
44		Dibromochloromethane	10.000	9.830	1.7	104	0.00
45		1,2-Dibromoethane	10.000	9.548	4.5	102	0.00
46	P	Chlorobenzene	10.000	10.191	-1.9	111	0.00
47		1,1,1,2-Tetrachloroethane	10.000	9.976	0.2	104	0.00
48	C	Ethylbenzene	10.000	10.608	-6.1#	112	0.00

Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418002.d
Acq On : 18 Apr 2014 7:26 am
Operator :
Sample : CCV0418W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 18 07:38:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49		m,p-Xylene	20.000	21.186	-5.9	110	0.00
50		o-Xylene	10.000	10.341	-3.4	108	0.00
51		Styrene	10.000	10.625	-6.3	109	0.00
52	P	Bromoform	10.000	9.912	0.9	104	0.00
53		Isopropylbenzene	10.000	10.964	-9.6	113	0.00
54	S	4-Bromofluorobenzene	10.000	9.662	3.4	100	0.00
55	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	108	0.00
56		Bromobenzene	10.000	9.849	1.5	110	0.00
57	P	1,1,2,2-Tetrachloroethane	10.000	8.356	16.4	95	0.00
58		1,2,3-Trichloropropane	10.000	8.696	13.0	96	0.00
59		n-Propylbenzene	10.000	10.401	-4.0	112	0.00
60		2-Chlorotoluene	10.000	10.324	-3.2	111	0.00
61		4-Chlorotoluene	10.000	10.123	-1.2	109	0.00
62		1,3,5-Trimethylbenzene	10.000	10.724	-7.2	112	0.00
63		tert-Butylbenzene	10.000	10.993	-9.9	113	0.00
64		1,2,4-Trimethylbenzene	10.000	10.573	-5.7	111	0.00
65		sec-Butylbenzene	10.000	10.969	-9.7	115	0.00
66		1,3-Dichlorobenzene	10.000	10.169	-1.7	111	0.00
67		p-Isopropyltoluene	10.000	11.086	-10.9	116	0.00
68		1,4-Dichlorobenzene	10.000	10.027	-0.3	110	0.00
69		1,2-Dichlorobenzene	10.000	10.022	-0.2	108	0.00
70		n-Butylbenzene	10.000	10.845	-8.5	115	0.00
71		1,2-Dibromo-3-chloropropane	10.000	9.511	4.9	102	0.00
72		1,2,4-Trichlorobenzene	10.000	9.815	1.9	106	0.00
73		Hexachlorobutadiene	10.000	10.544	-5.4	118	0.00
74		Naphthalene	10.000	8.118	18.8	89	0.00
75		1,2,3-Trichlorobenzene	10.000	8.195	18.0	90	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418002.d
Acq On : 18 Apr 2014 7:26 am
Operator :
Sample : CCV0418W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 18 07:38:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	508520	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	779796	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	631864	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	265229	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	185438	8.01	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.10%				
36) Toluene-d8	6.220	98	921727	10.03	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.30%				
54) 4-Bromofluorobenzene	8.616	95	271025	9.66	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 96.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	332216	8.51	ppb		100
3) Chloromethane	1.343	50	555206	9.21	ppb		100
4) Vinyl Chloride	1.428	62	486540	9.58	ppb		99
5) Bromomethane	1.684	96	228050	9.45	ppb		99
6) Chloroethane	1.769	64	257676	9.67	ppb		99
7) Trichlorofluoromethane	1.977	101	536961	9.82	ppb		99
8) 1,1-Dichloroethene	2.416	61	617814	10.57	ppb		100
9) Acetone	2.471	43	33047	9.23	ppb		97
10) Iodomethane	2.538	142	370036	9.44	ppb		95
11) Carbon Disulfide	2.592	76	986933	10.62	ppb		100
12) Methylene Chloride	2.824	49	487326	9.69	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	629922	10.70	ppb		100
14) Methyl t-Butyl Ether	3.062	73	329008	8.87	ppb		98
15) 1,1-Dichloroethane	3.409	63	701758	10.46	ppb		100
16) Vinyl Acetate	3.458	43	305585	10.78	ppb		100
17) 2,2-Dichloropropane	3.891	77	448962	10.48	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	641664	10.36	ppb		100
19) 2-Butanone	3.922	43	53621	8.71	ppb		95
20) Bromochloromethane	4.092	130	134904	10.39	ppb		96
21) Chloroform	4.165	83	520247	9.81	ppb		100
22) 1,1,1-Trichloroethane	4.318	97	509680	9.97	ppb		96
24) Carbon Tetrachloride	4.458	117	488116	10.22	ppb		97
25) 1,1-Dichloropropene	4.452	75	460172	10.39	ppb		99
26) Benzene	4.629	78	1228694	10.55	ppb		100
27) 1,2-Dichloroethane	4.641	62	293387	9.09	ppb		100
29) Trichloroethene	5.171	130	371749	10.81	ppb		100
30) 1,2-Dichloropropane	5.360	63	322741	10.28	ppb		99
31) Dibromomethane	5.464	174	103072	10.23	ppb		98
32) Bromodichloromethane	5.598	83	299092	9.58	ppb		99
33) 2-Chloroethyl Vinyl Ether	5.866	63	4136	2.46	ppb	#	75
34) (cis) 1,3-Dichloropropene	5.982	75	319928	9.97	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	103675	9.03	ppb		96
37) Toluene	6.275	91	1328132	10.46	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	210233	9.45	ppb		100
40) 1,1,2-Trichloroethane	6.634	97	123155	9.21	ppb		100
41) Tetrachloroethene	6.769	166	384346	11.15	ppb		99
42) 1,3-Dichloropropane	6.781	76	219339	9.44	ppb		99
43) 2-Hexanone	6.860	43	62133	7.79	ppb		100
44) Dibromochloromethane	6.988	129	169842	9.83	ppb		99

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418002.d
Acq On : 18 Apr 2014 7:26 am
Operator :
Sample : CCV0418W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 18 07:38:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

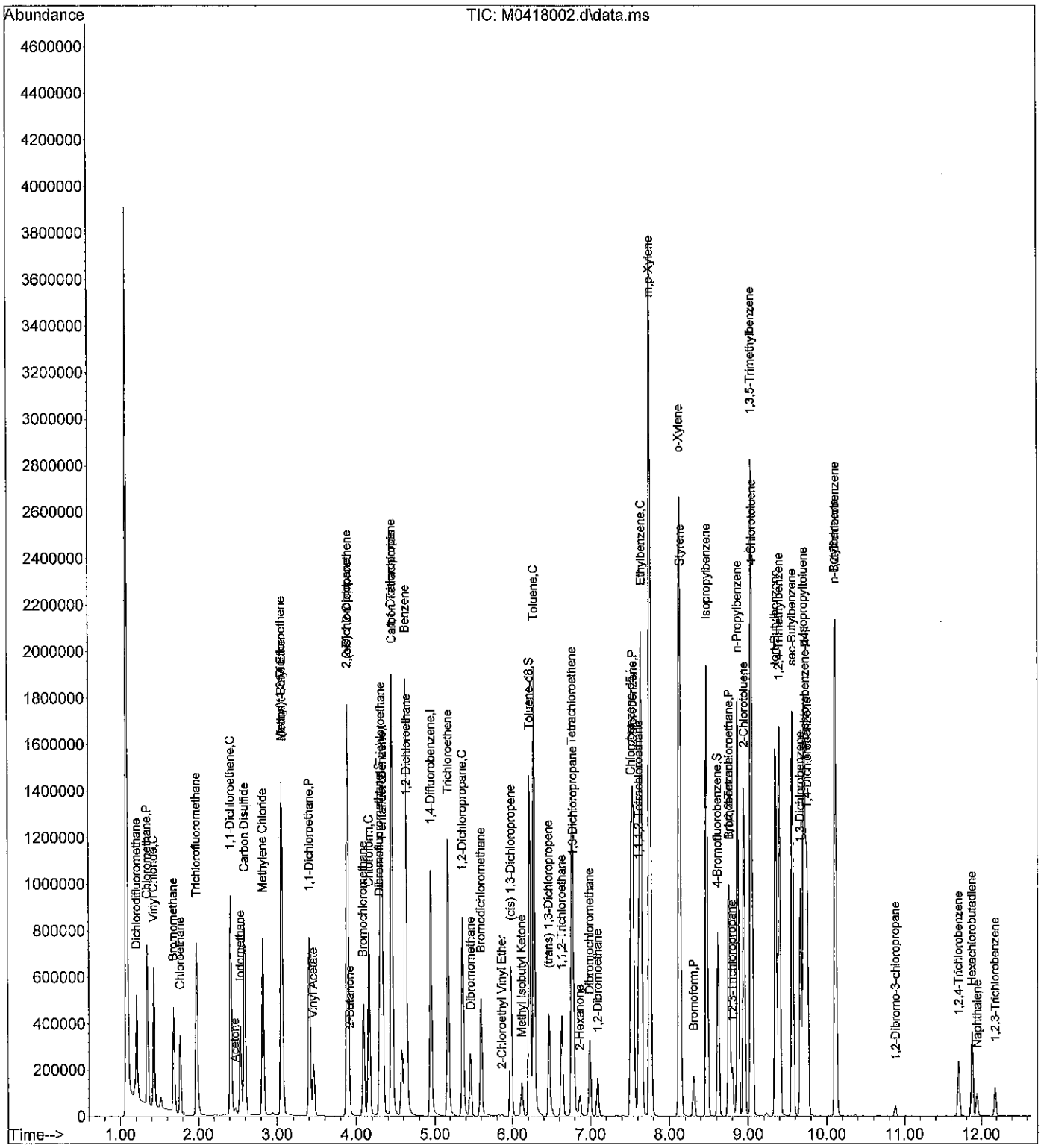
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	1,2-Dibromoethane	7.092	107	111627	9.55	ppb		100
46)	Chlorobenzene	7.543	112	716978	10.19	ppb		99
47)	1,1,1,2-Tetrachloroethane	7.616	133	226148	9.98	ppb		98
48)	Ethylbenzene	7.646	91	1465525	10.61	ppb		99
49)	m,p-Xylene	7.756	91	2189943	21.19	ppb		98
50)	o-Xylene	8.128	91	976590	10.34	ppb		99
51)	Styrene	8.140	104	748036	10.62	ppb		100
52)	Bromoform	8.311	173	86962	9.91	ppb		99
53)	Isopropylbenzene	8.476	105	1292235	10.96	ppb		98
56)	Bromobenzene	8.762	156	236360	9.85	ppb		99
57)	1,1,2,2-Tetrachloroethane	8.762	83	97135	8.36	ppb		99
58)	1,2,3-Trichloropropane	8.799	75	79779	8.70	ppb	#	100
59)	n-Propylbenzene	8.872	91	1471589	10.40	ppb		99
60)	2-Chlorotoluene	8.951	126	281455	10.32	ppb		100
61)	4-Chlorotoluene	9.055	126	270872	10.12	ppb		98
62)	1,3,5-Trimethylbenzene	9.042	105	1074529	10.72	ppb		98
63)	tert-Butylbenzene	9.353	119	867874	10.99	ppb		98
64)	1,2,4-Trimethylbenzene	9.402	105	981933	10.57	ppb		98
65)	sec-Butylbenzene	9.567	105	1249077	10.97	ppb		99
66)	1,3-Dichlorobenzene	9.670	146	421533	10.17	ppb		99
67)	p-Isopropyltoluene	9.713	119	994133	11.09	ppb		100
68)	1,4-Dichlorobenzene	9.756	146	434591	10.03	ppb		100
69)	1,2-Dichlorobenzene	10.115	146	301386	10.02	ppb		99
70)	n-Butylbenzene	10.109	91	887780	10.85	ppb		98
71)	1,2-Dibromo-3-chloropr...	10.884	157	12617	9.51	ppb		97
72)	1,2,4-Trichlorobenzene	11.700	180	81484	9.81	ppb		98
73)	Hexachlorobutadiene	11.877	225	81934	10.54	ppb		97
74)	Naphthalene	11.944	128	80106	8.12	ppb		100
75)	1,2,3-Trichlorobenzene	12.182	180	44066	8.19	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418002.d
Acq On : 18 Apr 2014 7:26 am
Operator :
Sample : CCV0418W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

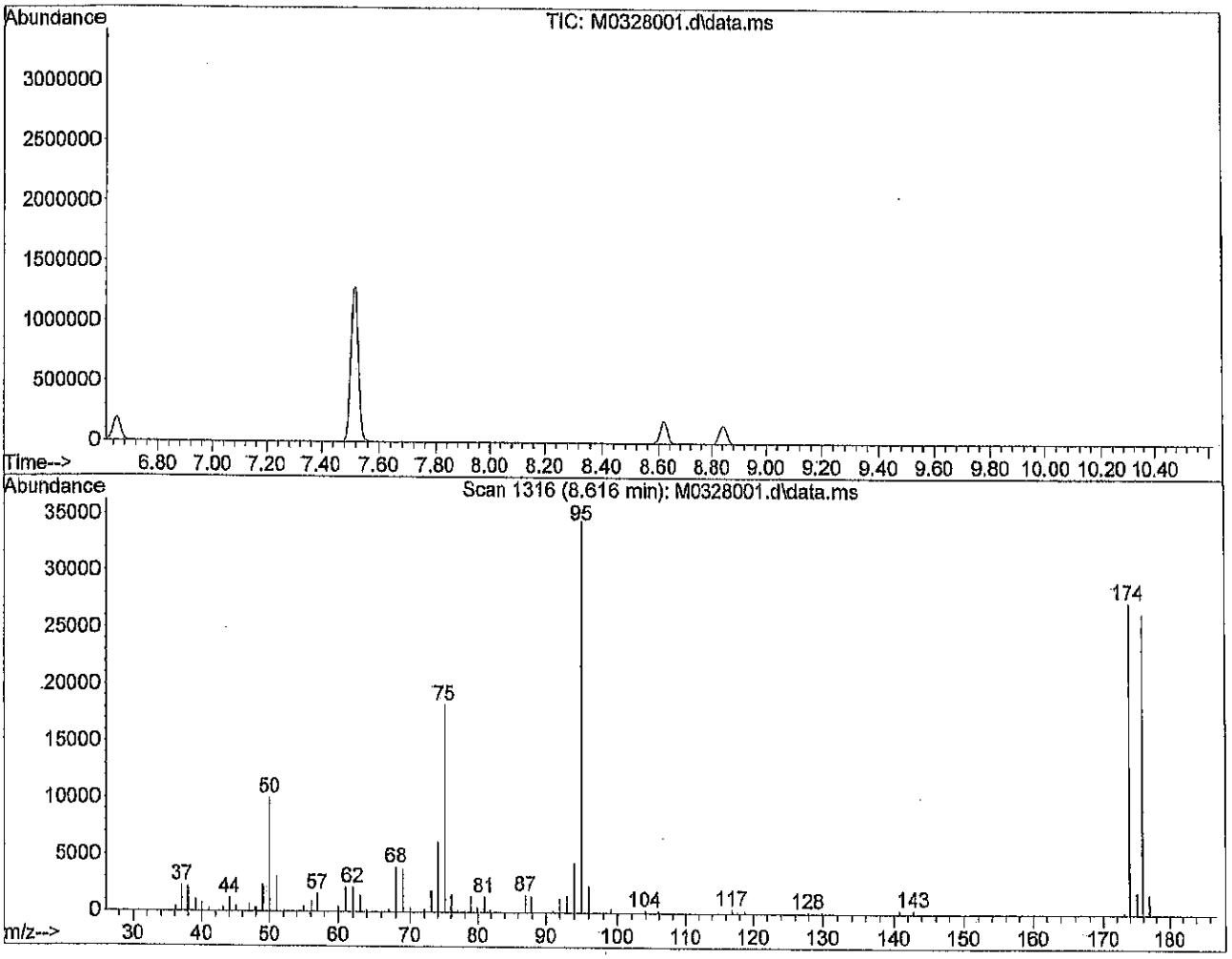
Quant Time: Apr 18 07:38:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\M140328\Snapshot\
Data File : M0328001.d
Acq On : 28 Mar 2014 6:54 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140324W.M
Title :
Last Update : Mon Mar 24 11:06:36 2014



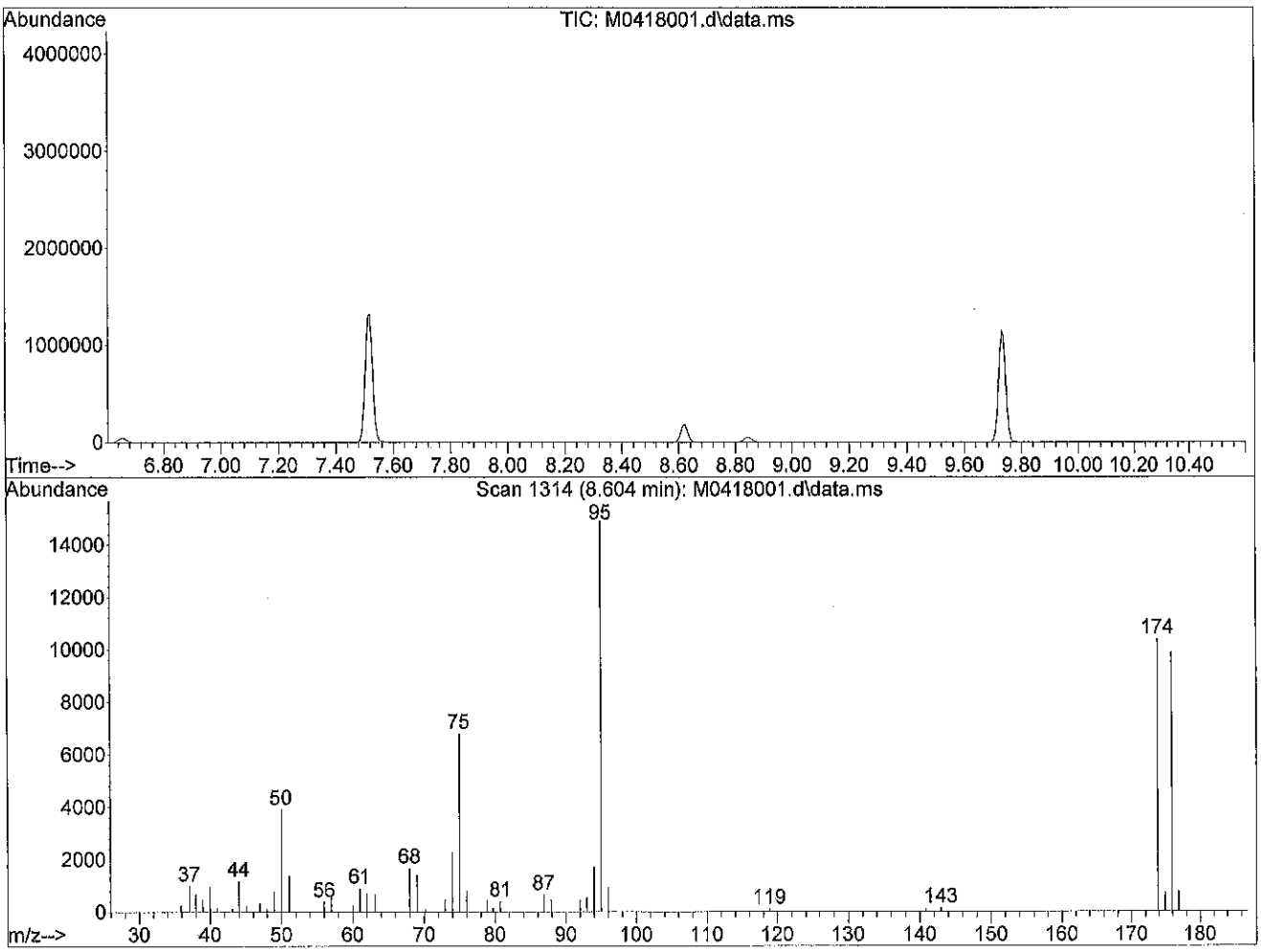
Spectrum Information: Scan 1316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	29.0	10030	PASS
75	95	30	80	52.9	18280	PASS
95	95	100	100	100.0	34536	PASS
96	95	5	9	6.6	2289	PASS
173	174	0.00	2	0.7	191	PASS
174	95	50	100	79.5	27456	PASS
175	174	5	9	7.0	1915	PASS
176	174	95	101	96.5	26504	PASS
177	176	5	9	6.6	1751	PASS

Data Path : X:\VOLATILE\MORRIS\DATA\M140418\
Data File : M0418001.d
Acq On : 18 Apr 2014 6:53 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014



Spectrum Information: Scan 1314

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.3	3926	PASS
75	95	30	80	45.5	6797	PASS
95	95	100	100	100.0	14923	PASS
96	95	5	9	6.3	939	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	69.7	10403	PASS
175	174	5	9	6.9	715	PASS
176	174	95	101	95.4	9920	PASS
177	176	5	9	7.8	777	PASS

GC/MS QA-QC Check Report

Tune File : X:\VOLATILE\MORRIS\DATA\M140418\M0418001.d
Tune Time : 18 Apr 2014 6:53 am

Daily Calibration File : X:\VOLATILE\MORRIS\DATA\M140418\M0418002.d

508520 779796 631864

265229

File	Sample	Surrogate Recovery %			Internal Standard Responses		
M0418003.d							
	SB0418W1	86	100	93	503473	783062	644187
				253080			
M0418004.d							
	04-122-02c	86	99	94	505941	794187	645562
				251460			
M0418005.d							
	04-122-02d	91	100	93	494844	787768	670651
				265527			
M0418006.d							
	MB0418W1	88	100	94	494341	770347	650172
				259580			
M0418007.d							
	04-122-02b	90	100	94	494142	778189	659570
				268120			
M0418014.d							
	04-122-05b	89	100	94	488827	769800	644289
				249450			
M0418015.d							
	04-122-04b	89	99	95	493717	777234	665579
				268042			
M0418016.d							
	04-122-01b	93	101	95	475309	764109	654150
				264422			
M0418017.d							
	04-122-03b	91	100	93	481222	762847	652925
				261122			

(fails) - fails 12hr time check * - fails criteria

Created: Mon Apr 21 07:23:54 2014 Morris

Sequence Name: C:\msdchem\1\sequence\M140328.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140328\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0328001 M140324W 50ng bfb mass tune
2)	Sample 2	M0328002 M140324W blank
3)	Sample 3	M0328003 M140324W 0.20 PPB ICAL
4)	Sample 4	M0328004 M140324W 1.0 PPB ICAL
5)	Sample 5	M0328005 M140324W 2.0 PPB ICAL
6)	Sample 6	M0328006 M140324W 5.0 PPB ICAL
7)	Sample 7	M0328007 M140324W 10 PPB ICAL
8)	Sample 8	M0328008 M140324W BLANK
9)	Sample 9	M0328009 M140324W 25 PPB ICAL
10)	Sample 10	M0328010 M140324W BLANK
11)	Sample 11	M0328011 M140324W 50 PPB ICAL
12)	Sample 12	M0328012 M140324W BLANK
13)	Sample 13	M0328013 M140324W BLANK
14)	Sample 14	M0328014 M140324W ICV0328W1
15)	Sample 15	M0328015 M140324W BLANK
16)	Sample 16	M0328016 M140324W BLANK
17)	Sample 17	M0328017 M140324W BLANK
18)	Sample 18	M0328018 M140324W 03-202-01a 1:100 SCREEN
19)	Sample 19	M0328019 M140324W 03-202-02a 1:100 SCREEN
20)	Sample 20	M0328020 M140324W 03-202-03a 1:100 SCREEN
21)	Sample 21	M0328021 M140324W 03-202-04a 1:100 SCREEN
22)	Sample 22	M0328022 M140324W 03-206-04c 1:100 SCREEN
23)	Sample 23	M0328023 M140324W 03-206-08c 1:100 SCREEN
24)	Sample 24	M0328024 M140324W 03-206-12c 1:100 SCREEN
25)	Sample 25	M0328025 M140324W 03-206-16c 1:100 SCREEN
26)	Sample 26	M0328026 M140324W 03-207-01a 1:100 SCREEN
27)	Sample 27	M0328027 M140324W 03-207-02a 1:100 SCREEN
28)	Sample 28	M0328028 M140324W 03-207-03a 1:100 SCREEN
29)	Sample 29	M0328029 M140324W 03-207-04a 1:100 SCREEN
30)	Sample 30	M0328030 M140324W 03-207-05a 1:100 SCREEN
31)	Sample 31	M0328031 M140324W 03-207-06a 1:100 SCREEN
32)	Sample 32	M0328032 M140324W 03-207-07a 1:100 SCREEN
33)	Sample 33	M0328033 M140324W 03-207-08a 1:100 SCREEN
34)	Sample 34	M0328034 M140324W 03-207-09a 1:100 SCREEN

Sequence Name: C:\msdchem\1\sequence\M140418.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140418\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0418001 M140328W 50ng bfb mass tune
2)	Sample 2	M0418002 M140328W CCV0418W1
3)	Sample 3	M0418003 M140328W SB0418W1
4)	Sample 4	M0418004 M140328W 04-122-02c MS
5)	Sample 5	M0418005 M140328W 04-122-02d MSD
6)	Sample 6	M0418006 M140328W MB0418W1
7)	Sample 7	M0418007 M140328W 04-122-02b
8)	Sample 8	M0418008 M140328W MB0418A1 1:5
9)	Sample 9	M0418009 M140328W 04-142-01A 1:5
10)	Sample 10	M0418010 M140328W 04-142-02A 1:5
11)	Sample 11	M0418011 M140328W 04-142-03A 1:5
12)	Sample 12	M0418012 M140328W 04-142-04A 1:5
13)	Sample 13	M0418013 M140328W 04-142-02A 1:5 DUP
14)	Sample 14	M0418014 M140328W 04-122-05b
15)	Sample 15	M0418015 M140328W 04-122-04b
16)	Sample 16	M0418016 M140328W 04-122-01b
17)	Sample 17	M0418017 M140328W 04-122-03b
18)	Sample 18	M0418018 M140328W 04-102-01b
19)	Sample 19	M0418019 M140328W 04-102-02b
20)	Sample 20	M0418020 M140328W 04-102-03b
21)	Sample 21	M0418021 M140328W 04-102-04b
22)	Sample 22	M0418022 M140328W 04-102-06b
23)	Sample 23	M0418023 M140328W 04-139-07d
24)	Sample 24	M0418024 M140328W 04-139-12d 1:5
25)	Sample 25	M0418025 M140328W 04-102-05b 1:5
26)	Sample 26	M0418026 M140328W BLANK
27)	Sample 27	M0418027 M140328W 04-137-01a 1:100 SCREEN
28)	Sample 28	M0418028 M140328W 04-137-02a 1:100 SCREEN
29)	Sample 29	M0418029 M140328W 04-137-03a 1:100 SCREEN
30)	Sample 30	M0418030 M140328W 04-138-01a 1:100 SCREEN
31)	Sample 31	M0418031 M140328W 04-138-02a 1:100 SCREEN
32)	Sample 32	M0418032 M140328W 04-138-03a 1:100 SCREEN
33)	Sample 33	M0418033 M140328W 04-149-01a 1:100 SCREEN
34)	Sample 34	M0418034 M140328W 04-156-01a 1:100 SCREEN
35)	Sample 35	M0418035 M140328W 04-156-02a 1:100 SCREEN
36)	Sample 36	M0418036 M140328W 04-156-03a 1:100 SCREEN

OnSite Environmental Inc.

WATER EXTRACTION LOG

Instrument Run #: M140418
Date: 4/18/14
Int. Std./Surr. Stock#: V3-123-7 / V3-120-15
Matrix Spike Stock#: V3-125-5

# of Sample	Date	Sample I.D.	Volume	pH of Sample	Analyst	Miscellaneous
	4/18/14	MB 04 18 W1	25mL	7	SD	
		SB04 18 W1		7		
1		04-122-01b		2		
2		-02b				
		-02c MS				
		-02d MSD				
3		-03b				
4		-04b				
5		-05b				
6		04-102-01b		2		
7		-02b				
8		-03b				
9		-04b	✓			
10		-05b	5mL			1:5
11		-06b	25mL			
		MB 04 18 A1	5mL	N/A		AIR 1:5
1		04-142-01A				
2		-02A				
3		-03A				
4		-04A				
		-02A DUP	✓	✓		
12		04-139-01d	25mL	2		
13		-02d	5mL	2		1:5

SD 4-18-14

TITLE **PROJECT**

Continued from page 11a

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
VOC ADD'S	V3-115-1							10-1-13	SD
250 ppm ICAL	V3-115-2	V3-114-4	2000 ppm	25 mL	1 mL	250 ppm	MeOH	10-1-13	SD
		V3-114-16							
		V3-115-1							
50 ppm ICAL	V3-115-3	V3-115-2	250 ppm	200 µL	1 mL	50 ppm	MeOH	10-1-13	SD
10 ppm ICAL	V3-115-4	V3-115-3	50 ppm	200 µL	1 mL	10 ppm	MeOH	10-1-13	SD
5 ppm ICAL	V3-115-5	V3-115-3	50 ppm	100 µL	1 mL	5 ppm	MeOH	10-1-13	SD
1 ppm ICAL	V3-115-6	V3-115-3	50 ppm	20 µL	1 mL	1 ppm	MeOH	10-1-13	SD
50 ppm SS (true)	V3-115-7	V3-114-16	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
50 ppm ICV	V3-115-8	V3-101-7	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
		V3-101-8							
		V3-101-9							
50 ppm CCV	V3-115-9	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
		V3-114-16							
		V3-115-1							
2000 ppm SS	V3-115-10	V3-113-16	2000 ppm	500 µL	1 mL	250 ppm	MeOH	10-7-13	SD
		V3-115-10							
250 ppm LCS	V3-115-12	V3-114-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-8-13	SD
2000 LCSD 50 ppm SS	V3-115-13	V3-115-10	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	SD
LCS 50 ppm ICV	V3-115-14	V3-114-4	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	SD
.05 ppm ICAL	V3-115-15	V3-115-6	1 ppm	.050 mL	1 mL	.050 ppm	MeOH	10-9-13	SD
50 ppm CCV	V3-115-16	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-10-13	SD
		V3-114-16							
		V3-115-1							
2500 ppm MS	V3-115-17							10-10-13	SD

Continued to page 11b

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 213091338
Exp: Jan 25,2014
1 mL
8 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard ~~VOA Mix~~
2.0 mg/mL in MeOH
Lot: 212051380
Exp: Jun 1,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
CLP-003-R-10X
Purgeable Organic Matrix Spiking Soln.
2.5 mg/mL in MeOH
Lot: 212011385
Exp: Feb 6,2022
1 mL
5 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

SIGNATURE

DISCLOSED TO AND UNDERSTOOD BY | DATE

TITLE **PROJECT**

Continued from page

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
250 ppm ICAL	V3-120-1	V3-118-5	2000 ppm	125 mL	1 mL	250 ppm	MeOH	1-3-14	SD
		V3-118-6							
		V3-118-7							
50 ppm ICAL	V3-120-2	V3-120-1	250 ppm	200 mL	1 mL	50 ppm	MeOH	1-3-14	SD
10 ppm ICAL	V3-120-3	V3-120-2	50 ppm	200 mL	1 mL	10 ppm	MeOH	1-3-14	SD
5 ppm ICAL	V3-120-4	V3-120-2	50 ppm	100 mL	1 mL	5 ppm	MeOH	1-3-14	SD
1 ppm ICAL	V3-120-5	V3-120-2	50 ppm	20 mL	1 mL	1 ppm	MeOH	1-3-14	SD
50 ppm M.S.	V3-120-6	V3-115-17	2500 ppm	20 mL	1 mL	50 ppm	MeOH	1-6-14	SD
50 ppm IS	V3-120-7	V3-117-7	2000 ppm	625 mL	25 mL	50 ppm	MeOH	1-7-14	SD
2000 ppm IS	V3-120-8							1-8-14	SD
250 ppm IS	V3-120-9	V3-117-7	2000 ppm	500 mL	4 mL	250 ppm	MeOH	1-8-14	SD
		V3-120-8							
250 ppm SS	V3-120-10	V3-119-15	20000 ppm	500 mL	4 mL	250 ppm	MeOH	1-13-14	SD
50 ppm GCV	V3-120-11	V3-118-5	2000 ppm	25 mL	1 mL	50 ppm	MeOH	1-13-14	SD
		V3-118-6							
		V3-118-7							
250 ppm IS	V3-120-12	V3-120-8	2000 ppm	500 mL	4 mL	250 ppm	MeOH	1-20-14	SD
2500 ppm SS	V3-120-13							1-24-14	SD
250 ppm SS	V3-120-14	V3-119-15	20000 ppm	500 mL	4 mL	250 ppm	MeOH	1-24-14	SD
		V3-120-13							
250 ppm SS	V3-120-15	V3-120-13	2000 ppm	625 mL	25 mL	50 ppm	MeOH	1-28-14	SD
50 ppm IS	V3-120-16	V3-120-8	2000 ppm	100 mL	4 mL	50 ppm	MeOH	1-28-14	SD
50 ppm SS	V3-120-17	V3-120-13	2000 ppm	100 mL	4 mL	50 ppm	MeOH	1-28-14	SD
50 ppm GCV	V3-120-18	V3-118-5	2000 ppm	25 mL	1 mL	50 ppm	MeOH	1-30-14	SD
		V3-118-6	2000 ppm	25 mL					
		V3-118-7	2000 ppm	25 mL					

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 212051380 4 comps.
Exp: Jun 1,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

Continued to page

SIGNATURE DATE

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TITLE **PROJECT**

Continued from page 120

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
	2000 ppm IS	V3121-1							2-3-14	SD
5									Spent SD 2-24-14	
	Albert 250 ppm IS	V3-121-2	V3-120-8 + V3-121-1	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-3-14	SD
	50 ppm MS	V3-121-3	V3-119-2	2500 ppm	20 mL	1 mL	50 ppm	MeOH	2-3-14	SD
10	2000 ppm SS	V3-121-4							2-4-14	SD
	Albert 250 ppm SS	V3-120-13 + V3-121-4	2000 ppm	500 mL	4 mL	1 mL 250 ppm SD 2-4-14	250 ppm MeOH SD 2-4-14	MeOH	2-4-14	SD
15	Albert 250 ppm SS	V3-121-5	V3-120-13 + V3-121-4	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-4-14	SD
	~~VOC Liquids~~	V3-121-6							2-5-14	SD
20									discarded SD 2/19	
	VOC ADD IS	V3-121-7							2-5-14	SD
									discarded	
25	~~VOC GASES~~	V3-121-8							2-5-14	SD
									discarded SD	
30	~~250 ppm ICAL~~	V3-121-9	~~V3-121-6~~ V3-121-7 V3-121-8	2000 ppm	125 mL	1 mL	250 ppm	MeOH	2-5-14	SD
	50 ppm ICAL	V3-121-10	V3-121-9	250 ppm	200 mL	1 mL	50 ppm	MeOH	2-5-14	SD
	10 ppm ICAL	V3-121-11	V3-121-10	50 ppm	200 mL	1 mL	10 ppm	MeOH	2-5-14	SD
35	5 ppm ICAL	~~V3-121-12~~	V3-121-10	50 ppm	100 mL	1 mL	5 ppm	MeOH	2-5-14	SD

Continued to page 122

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 212051380 4 comps.
Exp: Jun 1,2022 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 213121006 8 comps.
Exp: Apr 3,2014 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-502B-10X 1 mL
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424 6 comps.
Exp: May 2,2016 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

SIGNATURE DATE

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TITLE

PROJECT

Continued from page 12

ANALYTE	LAB ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Initials
~~1 ppm ICAL~~	~~V3-122-1~~	~~V3-121-10~~	~~50 ppm~~	~~20 mL~~	~~1 mL~~	~~1 ppm~~	~~MeOH~~	~~2-5-14~~	~~SD~~ Recalculated 3-3-14
~~2 ppm ICAL~~	~~V3-122-2~~	~~V3-121-1~~	~~1 ppm~~	~~5 mL~~	~~0.5 mL~~	~~2 ppm~~	~~MeOH~~	~~2-5-14~~	~~SD~~ Discarded 3-3-14
ICV VOC LIQUIDS	V3-122-3								
ICV VOC ADDs	V3-122-4								
ICV VOC GASES	V3-122-5								
50 ppm ICV	V3-122-6	V3-122-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-5-14	SD Discarded SD 3-3-14
		V3-122-4	〃	〃	〃	〃	〃	〃	
		V3-122-5	〃	〃	〃	〃	〃	〃	
100 ppm ACRYL/DCB	V3-122-7	V3-117-11	100 ppm	500 µL	1 mL	100 ppm	MeOH	2-5-14	SD
		V3-117-12	100 ppm	500 µL					
50 ppm ACRYL/DCB	V3-122-8	~~V3-122-7~~ V3-122-11	100 ppm	500 mL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ACRYL/DCB	V3-122-9	V3-122-8	50 ppm	200 µL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ACRYL/DCB	V3-122-10	V3-122-8	50 ppm	100 µL	1 mL	5 ppm	MeOH	2-5-14	SD
50 ppm CCV	V3-122-11	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-7-14	SD
		V3-121-7	〃	〃	〃	〃	〃	〃	Discarded SD 3-3-14
		V3-121-8	〃	〃	〃	〃	〃	〃	
~~250 ppm IS~~	~~V3-122-12~~	~~V3-121-1~~	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~2-10-14~~	~~SD~~ spike SD 2-24-14
~~250 ppm SS~~	~~V3-122-13~~	~~V3-121-4~~	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~2-18-14~~	~~SD~~ spike SD 2-20-14
2000 ppm IS	V3-122-14							2-24-14	SD
~~250 ppm IS~~	~~V3-122-15~~	~~V3-121-1~~	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~2-24-14~~	~~SD~~ spike SD 3-3-14
		V3-122-14	〃	〃	〃	〃	〃	〃	〃

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 213091216 55 comps.
Exp: Sep 19,2016 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214011413 8 comps.
Exp: Jun 3,2014 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-502B-10X 1 mL
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213071142 6 comps.
Exp: Jul 17,2016 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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SIGNATURE DATE

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TITLE **PROJECT**

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	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
	50 ppm SS (Tune)	V3-123-1	V3-121-4	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-26-14	SD
	50 ppm CCV	V3-123-2	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-27-14	SD
			V3-121-7							
			V3-121-8							
waldo	50 ppm IS	V3-123-3	V3-122-14	2000 ppm	100 mL	4 mL	50 ppm	MeOH	2-27-14	EEM
waldo	50 ppm SS	V3-123-4	V3-121-4	2000 ppm	100 mL	4 mL	50 ppm	MeOH	2-27-14	EEM
	~~2000 ppm SS~~	V3-123-5							2-28-14	SD
									spent	
Albert	~~250 ppm SS~~	V3-123-6	V3-121-4						3-2-14	
			V3-123-5	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-28-14	SD
	~~50 ppm IS~~	V3-123-7	V3-122-14	~~2000 ppm~~	~~625 mL~~	~~25 mL~~	~~50 ppm~~	~~MeOH~~	3-6-14	SD
Morris	~~2000 ppm IS~~	V3-123-8							3-10-14	SD
									spent	
Albert	250 ppm IS	V3-123-9	V3-122-14	2000 ppm	500 mL	4 mL	250 ppm	MeOH	3-10-14	SD
			V3-123-8							
Albert	~~250 ppm SS~~	V3-123-10	V3-123-5	2000 ppm	500 mL	4 mL	250 ppm	MeOH	3-10-14	SD
	50 ppm CCV	V3-123-11	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-10-14	SD
			V3-121-7							
			V3-121-8							
	~~50 ppm CCV~~	~~V3-123-12~~	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-121-8							
	VOC GASES	V3-123-13							3-13-14	SD
	50 ppm CCV	V3-123-14	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-123-13							

Continued to page

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028
Exp: Nov 6,2023
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287
Exp: Nov 19,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424
Exp: May 2,2016
1 mL
6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

SIGNATURE DATE

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Continued from page 123 / Analyte	Lab ID	Stock ID	Stock conc.	Stock Vol.	Final Vol.	Final conc.	Solvent	Date	Initials
250 ppm IS/SS	V3-124-1	V3-123-8	2000 ppm	250 µL	2 mL	250 ppm	MeOH	3-14-14	eeni
		V3-123-5	L	250 µL	L	L	L	L	L
~~50 ppm IS~~	~~V3-124-2~~	~~V3-115-17~~	~~2500 ppm~~	~~80 mL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~ discarded 4-15-14
50 ppm ICV	V3-124-3	V3-123-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-19-14	SD
		V3-123-4	L	L	L	L	L	L	L
		V3-123-5	L	L	L	L	L	L	L
VOC Liquids	V3-124-4							3-19-14	SD
VOC ADD's	V3-124-5							3-19-14	SD
250 ppm ICAL	V3-124-6	V3-123-3	2000 ppm	125 mL	1 mL	250 ppm	MeOH	3-19-14	SD
		V3-124-4	L	L	L	L	L	L	L
		V3-124-5	L	L	L	L	L	L	L
50 ppm ICAL	V3-124-7	V3-124-6	250 ppm	200	1 mL	50 ppm	MeOH	3-19-14	SD
10 ppm ICAL	V3-124-8	V3-124-7	50 ppm	200	1 mL	10 ppm	MeOH	3-19-14	SD
5 ppm ICAL	V3-124-9	V3-124-7	50 ppm	100	1 mL	5 ppm	MeOH	3-19-14	SD
1 ppm ICAL	V3-124-10	V3-124-7	50 ppm	20	1 mL	1 ppm	MeOH	3-19-14	SD
~~CCV 50 ppm~~	~~V3-124-11~~	~~V3-123-13~~	~~2000 ppm~~	~~25 mL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~ discarded 3-19-14
		V3-124-4	L	L	L	L	L	L	L
		V3-124-5	L	L	L	L	L	L	L
2000 ppm SS	V3-124-12							3-21-14	SD
~~250 ppm IS~~	~~V3-124-13~~	~~V3-123-8~~	~~2000 ppm~~	~~500 mL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~ discarded 3-31-14
~~250 ppm SS~~	~~V3-124-14~~	~~V3-123-5~~	~~2000 ppm~~	~~500 mL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~ discarded 3-31-14
		V3-124-12	L	L	L	L	L	L	L
~~8000 ppm IS~~	~~V3-124-15~~							3-31-14	SD

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214021286 8 comps.
Exp: Jun 28,2014 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Storage: Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6,2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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TITLE **PROJECT**

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	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
Albert	~~250 ppm IS~~	~~V3-125-1~~	~~V3-123-8~~ V3-124-15	2000 ppm	~~500 µL~~	~~1 mL~~	~~250 ppm~~	~~MeOH~~	~~3-31-14~~	~~SD~~
Albert	~~250 ppm SS~~	~~V3-125-2~~	~~V3-124-12~~	2000 ppm	~~500 µL~~	~~1 mL~~	~~250 ppm~~	~~MeOH~~	~~3-31-14~~	~~SD~~
Albert	~~250 ppm IS~~	~~V3-125-3~~	~~V3-124-15~~	~~2000 ppm~~	~~250 µL~~ 25 mL	~~2 mL~~ 1 mL 25 µL	~~250 ppm~~ 50 ppm	~~MeOH~~	~~4-9-14~~	~~SD~~
	50 ppm CCV	V3-125-4	V3-123-13	2000 ppm	~~2000 ppm~~	~~1 mL~~ 25 µL	50 ppm	MeOH	4-9-14	SD
			V3-124-4							
			V3-124-5							
10	50 ppm M.S.	V3-125-5	V3-115-17	2500 ppm	20 mL	1 mL	50 ppm	MeOH	4-9-14	SD
Albert	~~250 ppm SS~~	~~V3-125-6~~	~~V3-124-12~~	2000 ppm	~~250 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-14-14~~	~~SD~~
Albert	~~250 ppm IS~~	~~V3-125-7~~	~~V3-124-15~~	~~2000 ppm~~	~~250 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-16-14~~	~~SD~~
	2000 ppm IS	V3-125-8							4-21-14	SD
15										
	2000 ppm SS	V3-125-9							4-21-14	SD
20										
Albert	250 ppm IS	V3-125-10	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-21-14	SD
Albert	250 ppm SS	V3-125-11	V3-125-9	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-21-14	SD
Morris	50 ppm IS	V3-125-12	V3-125-8	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
Morris	50 ppm SS	V3-125-13	V3-125-9	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
25										
30										
35										

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
Storage: Ambient
Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6,2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
Danger

Continued to page

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OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

April 23, 2014

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0180-121-09
Laboratory Reference No. 1404-123

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on April 16, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: April 23, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-123
Project: 0180-121-09

Case Narrative

Samples were collected on April 15, 2014 and received by the laboratory on April 16, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: April 23, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-123
Project: 0180-121-09

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-100-140415	04-123-01	Water	4-15-14	4-16-14	
MW-UI-140415	04-123-02	Water	4-15-14	4-16-14	
MW-96-17-140415	04-123-03	Water	4-15-14	4-16-14	
RIN-1-140415	04-123-04	Water	4-15-14	4-16-14	
TB-1-140415	04-123-05	Water	4-15-14	4-16-14	

Date of Report: April 23, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-123
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-100-140415**					
Laboratory ID:	04-123-01					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*84*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-123
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-UI-140415**					
Laboratory ID:	04-123-02					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	7.9	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*84*	*62-122*				
Toluene-d8	*97*	*70-120*				
4-Bromofluorobenzene	*92*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-123
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-96-17-140415**					
Laboratory ID:	04-123-03					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*84*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*91*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-123
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RIN-1-140415**					
Laboratory ID:	04-123-04					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*85*	*62-122*				
Toluene-d8	*98*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-123
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TB-1-140415**					
Laboratory ID:	04-123-05					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*85*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-123
Project: 0180-121-09

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0421W1					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*83*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*92*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 16, 2014
Laboratory Reference: 1404-123
Project: 0180-121-09

VOLATILES by EPA 8260C
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	04-137-01										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	**8.66**	**8.50**	10.0	10.0	ND	87	85	57-133	2	15	
Benzene	**8.90**	**8.73**	10.0	10.0	ND	89	87	78-117	2	15	
Trichloroethene	**17.7**	**18.0**	10.0	10.0	8.40	93	96	77-120	2	15	
Toluene	**9.07**	**9.25**	10.0	10.0	ND	91	93	80-115	2	15	
Chlorobenzene	**10.3**	**10.3**	10.0	10.0	ND	103	103	80-122	0	15	
Surrogate:											
Dibromofluoromethane						*82*	*82*	*62-122*			
Toluene-d8						*95*	*95*	*70-120*			
4-Bromofluorobenzene						*92*	*93*	*71-120*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

12

Company: GEO ENGINEERS
Project Number: 0160-121-09
Project Name: PALERMO
Project Manager: NICK ROHLBACH
Sampled by: BMB

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 04-123

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	PROJECT LIST VOCS					% Moisture
1	MW-100-140415	4/15/14	0950	W	3																	X					
2	MW-U1-140415		1105	W	3																	X					
3	MW-96-17-140415		1310	W	3																	X					
4	RIN-1-140415		1115	W	3																	X					
5	TB-1-140415			W	2																	X					

	Signature	Company	Date	Time
Relinquished		GEI	4/15/14	1405
Received		GEI	4/15/14	1405
Relinquished		GEI	4/16/14	9:45AM
Received		STEEDY #4	4/16/14	945A
Relinquished		" "	4/16/14	1057AM
Received			4/16/14	1057
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 0180-121-09

OnSite Project Number: 04-123

Initiated by: JM

Date Initiated: 4/16/14

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 1	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A		
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	Yes	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	Yes	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

Complete Data Package

- Volatiles by EPA 8260C

Volatiles by EPA 8260C Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421012.d
Acq On : 21 Apr 2014 12:19 pm
Operator :
Sample : 04-123-01b
Misc :
ALS Vial : 12 Sample Multiplier: 1

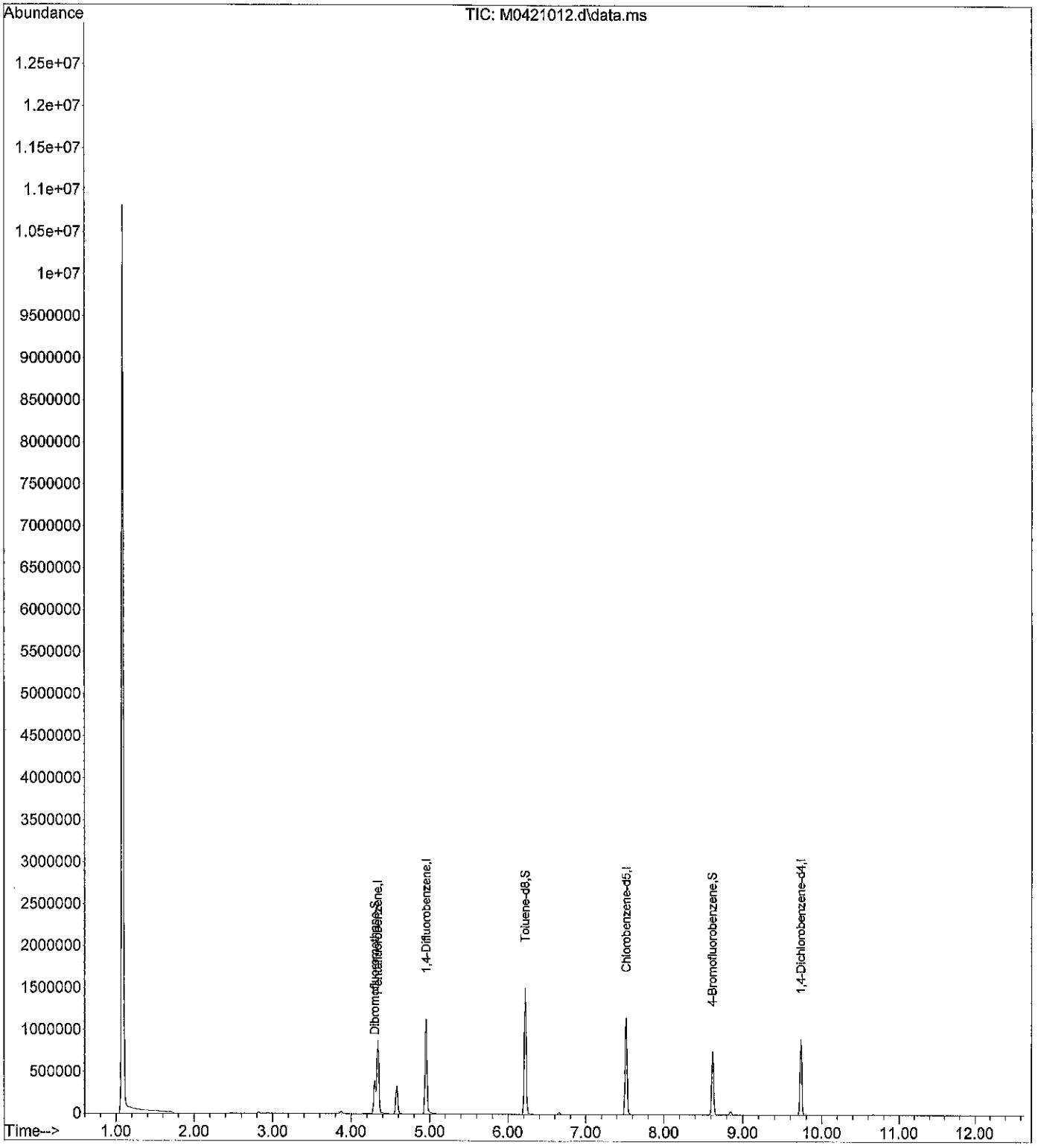
Quant Time: Apr 21 13:35:55 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	569171	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	820434	10.00	ppb	0.00
38) Chlorobenzene-d5	7.519	117	632171	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.732	152	251830	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	216510	8.35	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 83.50%			
36) Toluene-d8	6.220	98	926606	9.58	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.80%			
54) 4-Bromofluorobenzene	8.616	95	260104	9.27	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.70%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421012.d
Acq On : 21 Apr 2014 12:19 pm
Operator :
Sample : 04-123-01b
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 21 13:35:55 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421013.d
Acq On : 21 Apr 2014 12:43 pm
Operator :
Sample : 04-123-02b
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 21 12:56:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

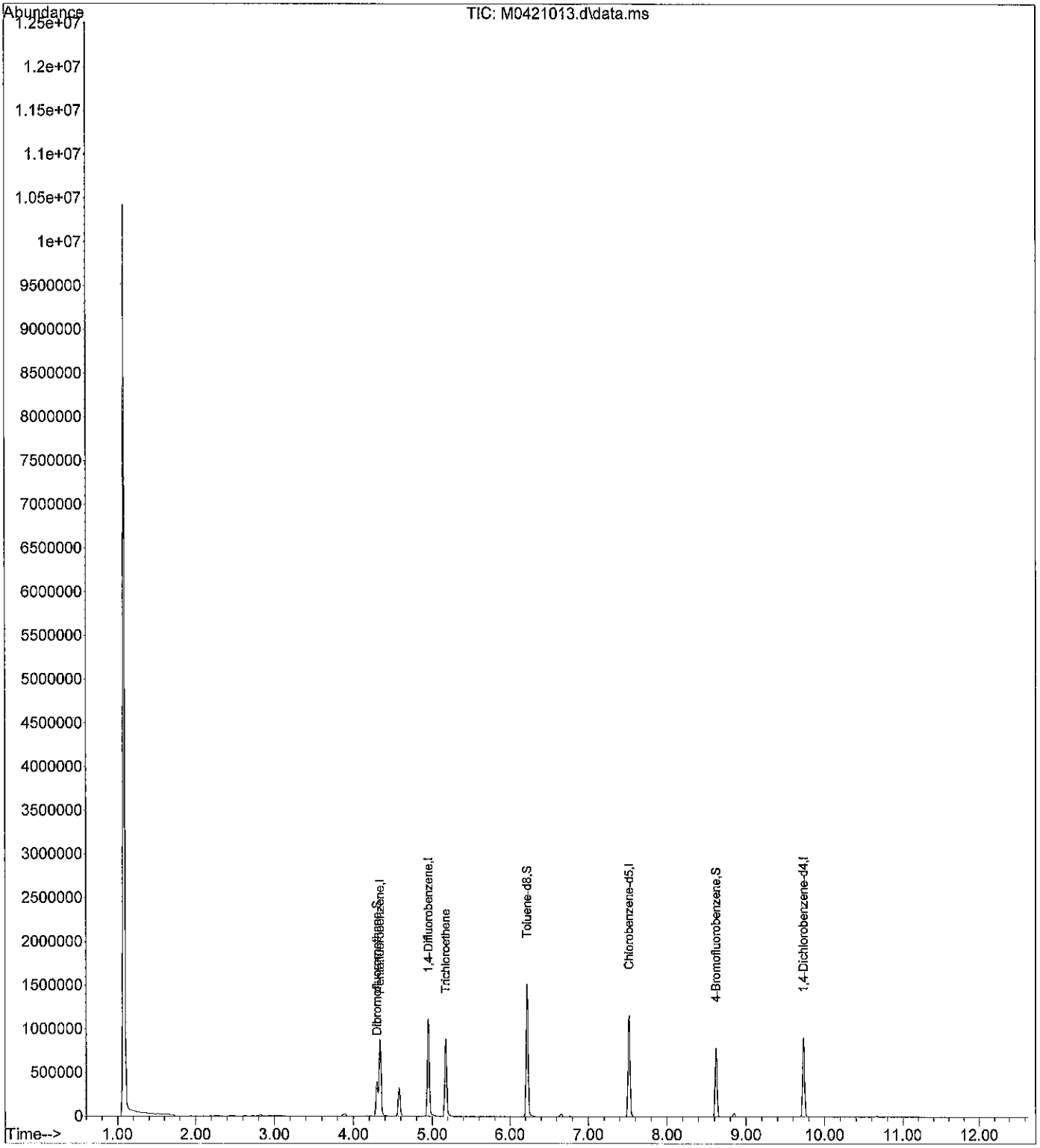
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene	4.336	168	568099	10.00 ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	815789	10.00 ppb	0.00
38) Chlorobenzene-d5	7.518	117	645019	10.00 ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	253774	10.00 ppb	0.00
System Monitoring Compounds					
23) Dibromofluoromethane	4.299	111	217128	8.39 ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 83.90%		
36) Toluene-d8	6.220	98	935767	9.73 ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 97.30%		
54) 4-Bromofluorobenzene	8.622	95	264356	9.23 ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.30%		
Target Compounds					Qvalue
29) Trichloroethene	5.171	130	283895	7.89 ppb	99

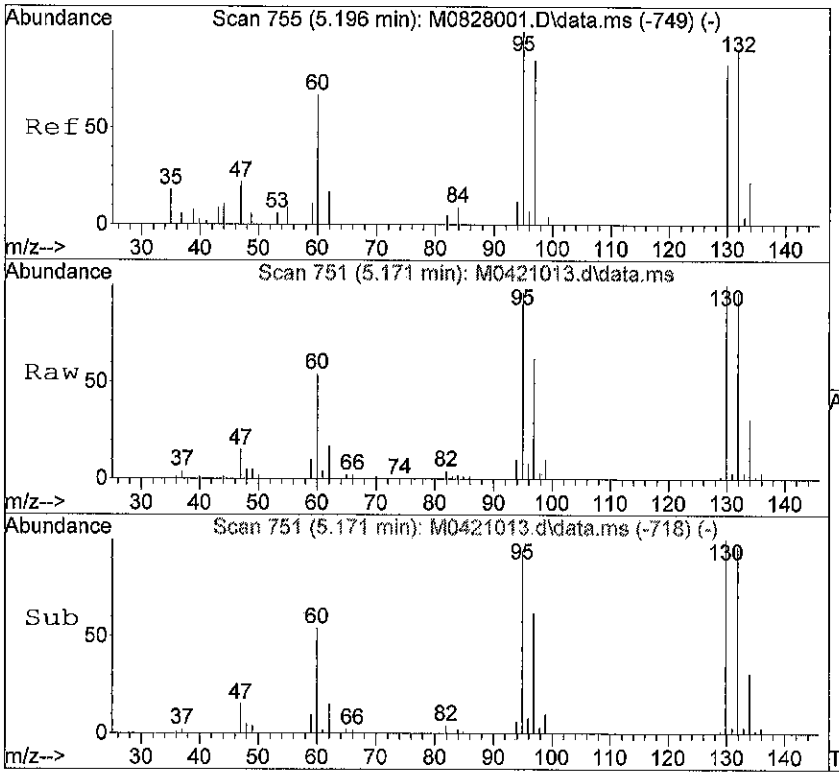
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421013.d
Acq On : 21 Apr 2014 12:43 pm
Operator :
Sample : 04-123-02b
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 21 12:56:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

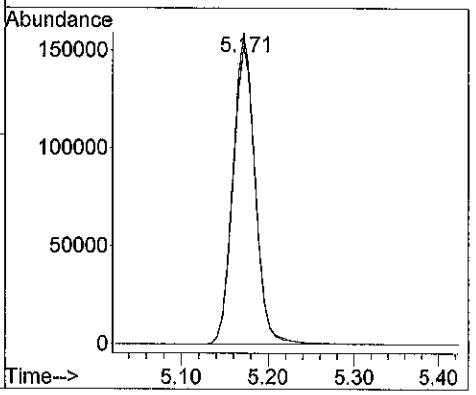




#29
Trichloroethene
Concen: 7.89 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0421013.d
Acq: 21 Apr 2014 12:43 pm

Tgt Ion:130 Resp: 283895

Ion	Ratio	Lower	Upper
130	100		
132	95.3	77.0	115.6



Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421014.d
Acq On : 21 Apr 2014 1:07 pm
Operator :
Sample : 04-123-03b
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 21 13:20:00 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

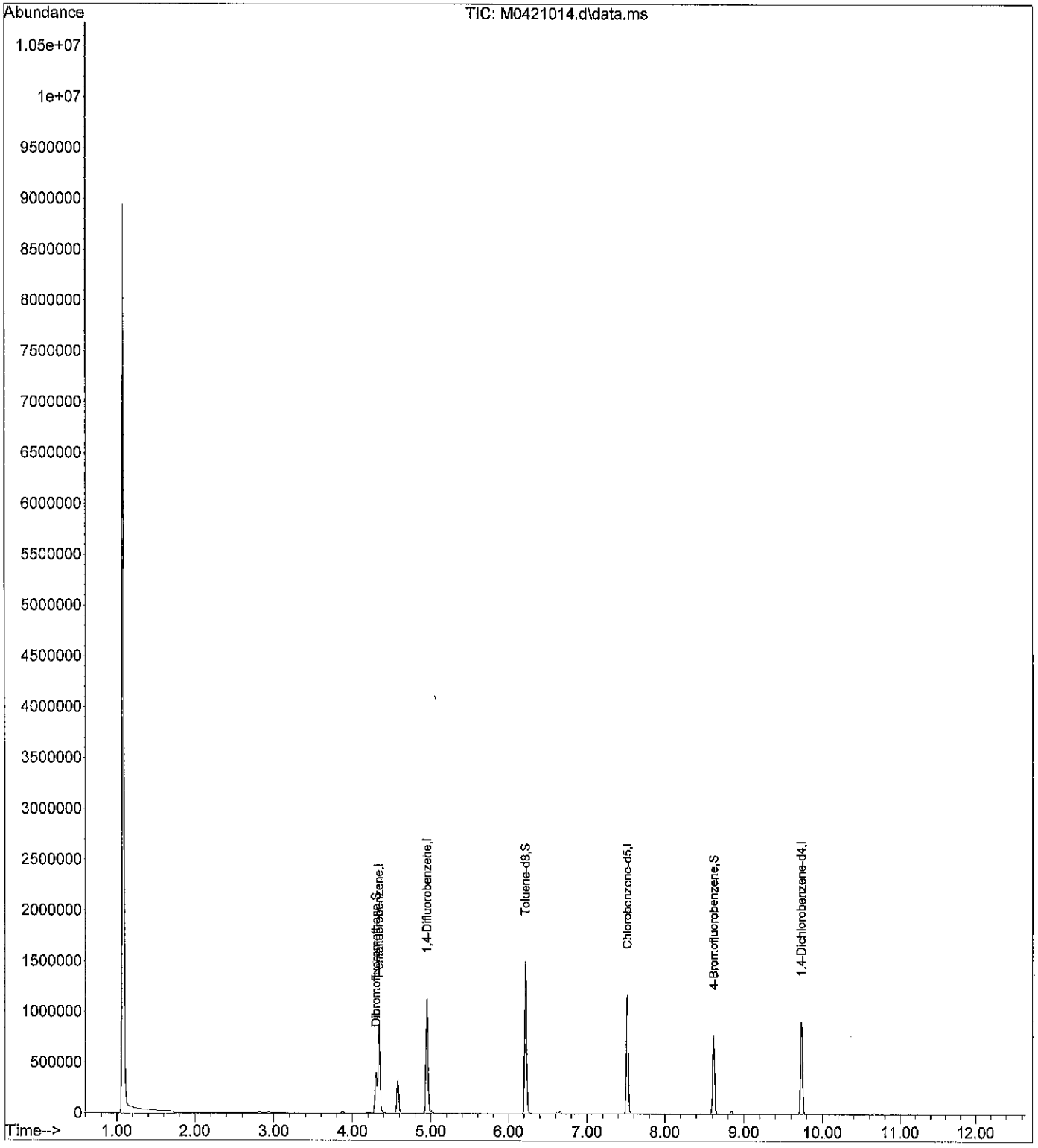
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	574385	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	823790	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	645616	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	251540	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	218434	8.35	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 83.50%			
36) Toluene-d8	6.220	98	934730	9.63	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.30%			
54) 4-Bromofluorobenzene	8.622	95	260555	9.09	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 90.90%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421014.d
Acq On : 21 Apr 2014 1:07 pm
Operator :
Sample : 04-123-03b
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 21 13:20:00 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421015.d
Acq On : 21 Apr 2014 1:30 pm
Operator :
Sample : 04-123-04b
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 21 14:37:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

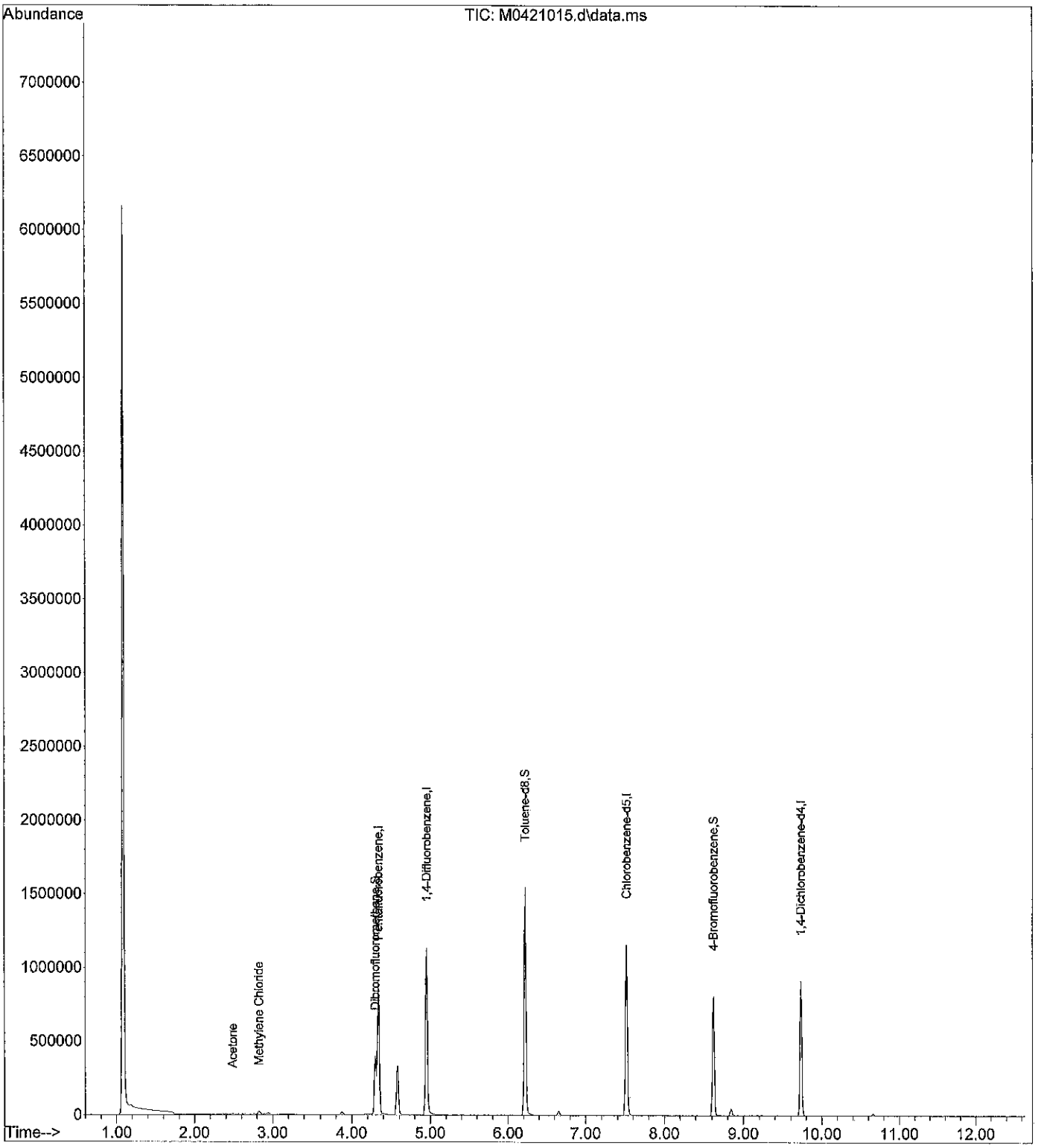
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	561544	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	826999	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	646081	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	252921	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	218498	8.54	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 85.40%			
36) Toluene-d8	6.220	98	952063	9.77	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 97.70%			
54) 4-Bromofluorobenzene	8.622	95	269029	9.38	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.80%			
Target Compounds						Qvalue
9) Acetone	2.489	43	3466	0.32	ppb	95
12) Methylene Chloride	2.824	49	11807	0.21	ppb	98

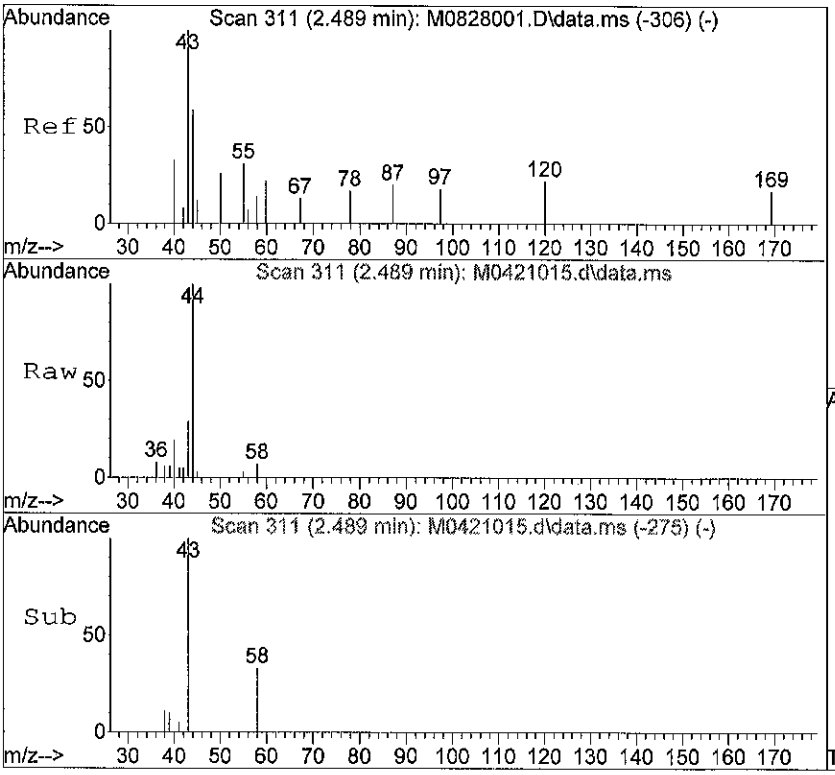
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421015.d
Acq On : 21 Apr 2014 1:30 pm
Operator :
Sample : 04-123-04b
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 21 14:37:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

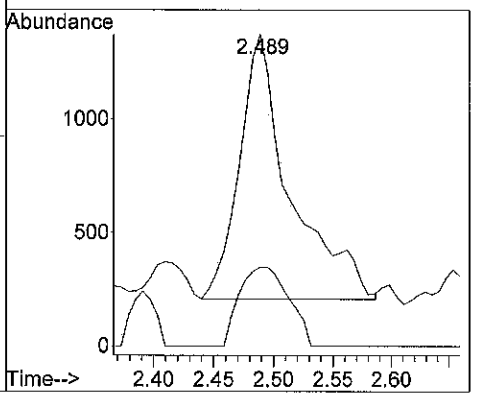


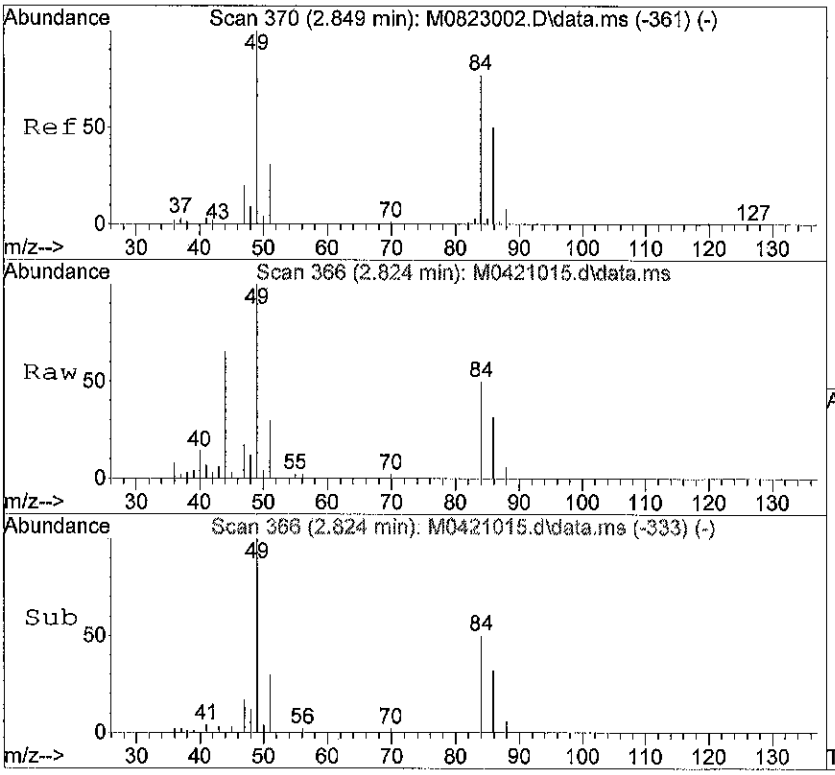


#9
Acetone
Concen: 0.32 ppb
RT: 2.489 min Scan# 311
Delta R.T. 0.018 min
Lab File: M0421015.d
Acq: 21 Apr 2014 1:30 pm

Tgt Ion: 43 Resp: 3466

Ion	Ratio	Lower	Upper
43	100		
58	28.9	25.4	38.0

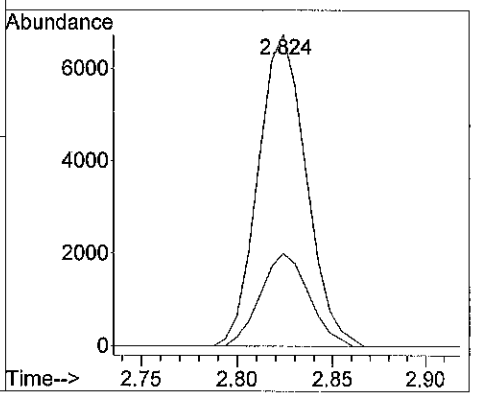




#12
Methylene Chloride
Concen: 0.21 ppb
RT: 2.824 min Scan# 366
Delta R.T. 0.000 min
Lab File: M0421015.d
Acq: 21 Apr 2014 1:30 pm

Tgt Ion: 49 Resp: 11807

Ion	Ratio	Lower	Upper
49	100		
51	29.9	24.8	37.2



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421016.d
Acq On : 21 Apr 2014 1:54 pm
Operator :
Sample : 04-123-05b
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 21 14:37:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

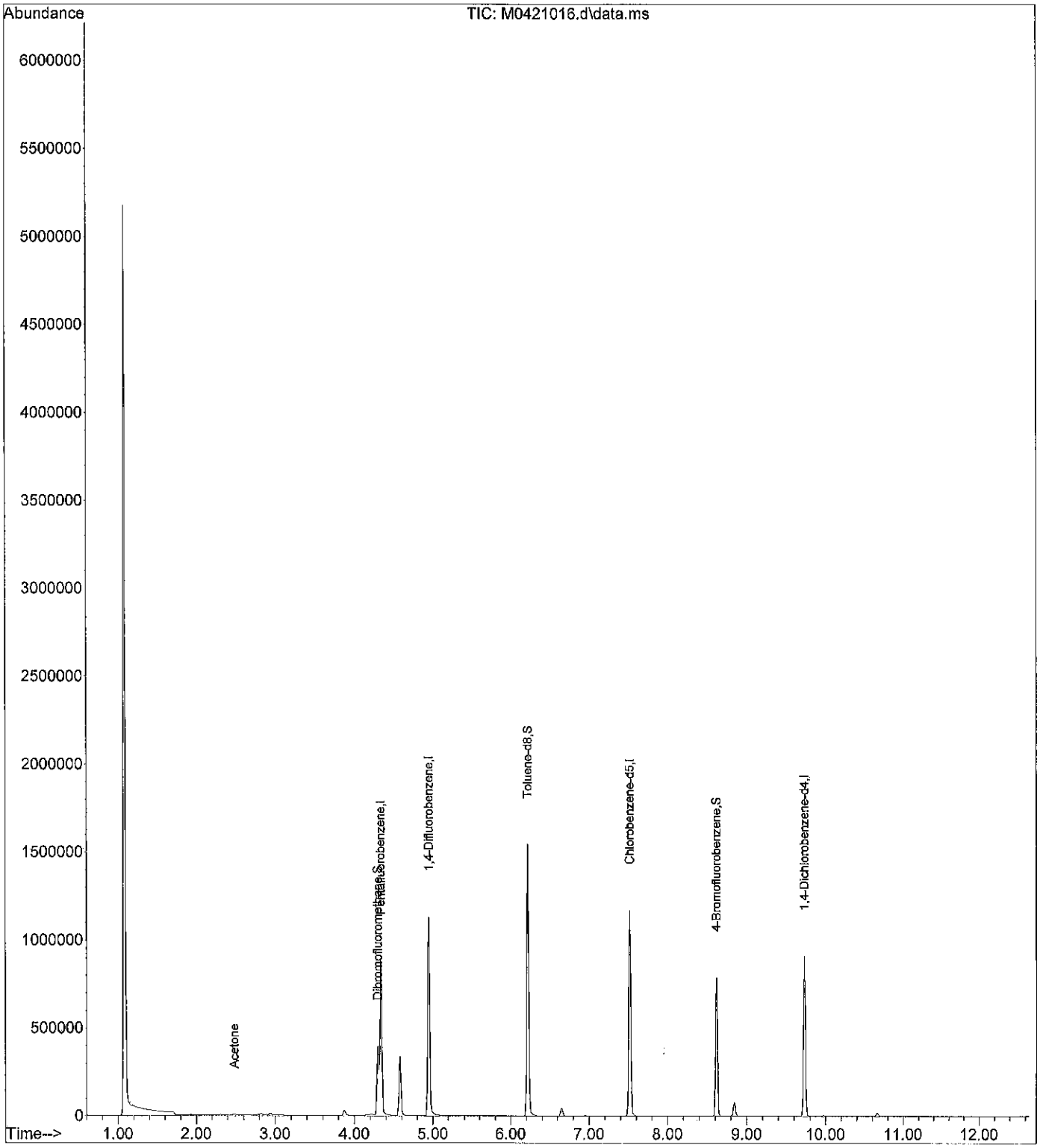
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	564472	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	834356	10.00	ppb	0.00
38) Chlorobenzene-d5	7.519	117	650657	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	249572	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	218507	8.50	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 85.00%			
36) Toluene-d8	6.220	98	947826	9.64	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.40%			
54) 4-Bromofluorobenzene	8.622	95	270227	9.36	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.60%			
Target Compounds						Qvalue
9) Acetone	2.483	43	4509	0.60	ppb	94

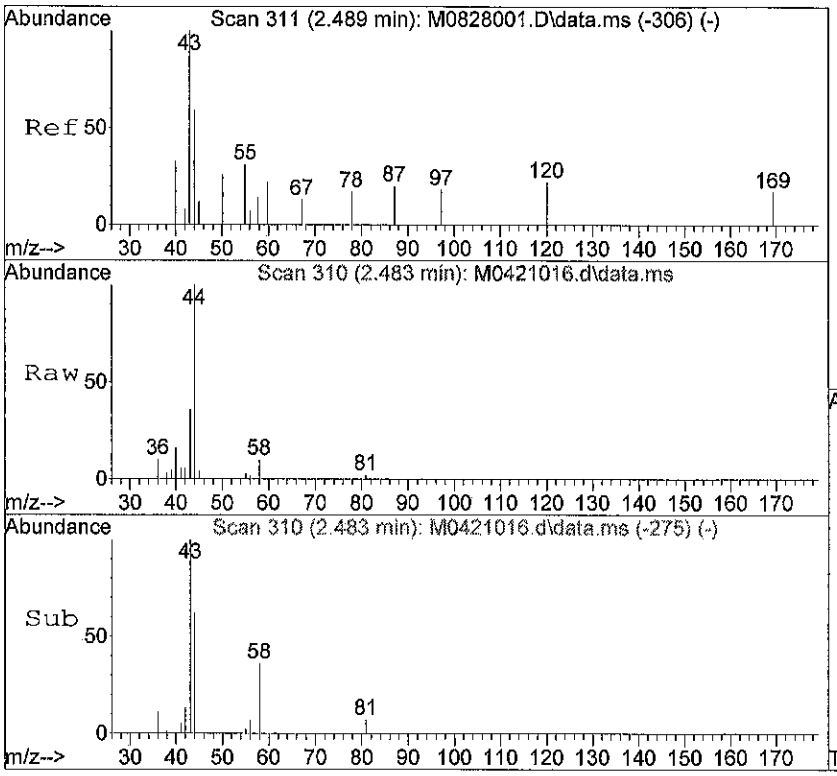
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421016.d
Acq On : 21 Apr 2014 1:54 pm
Operator :
Sample : 04-123-05b
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 21 14:37:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

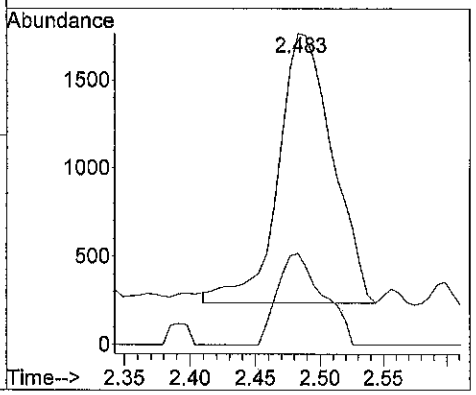




#9
Acetone
Concen: 0.60 ppb
RT: 2.483 min Scan# 310
Delta R.T. 0.012 min
Lab File: M0421016.d
Acq: 21 Apr 2014 1:54 pm

Tgt Ion: 43 Resp: 4509

Ion	Ratio	Lower	Upper
43	100		
58	28.3	25.4	38.0



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421006.d
Acq On : 21 Apr 2014 9:50 am
Operator :
Sample : MB0421W1
Misc :
ALS Vial : 6 Sample Multiplier: 1

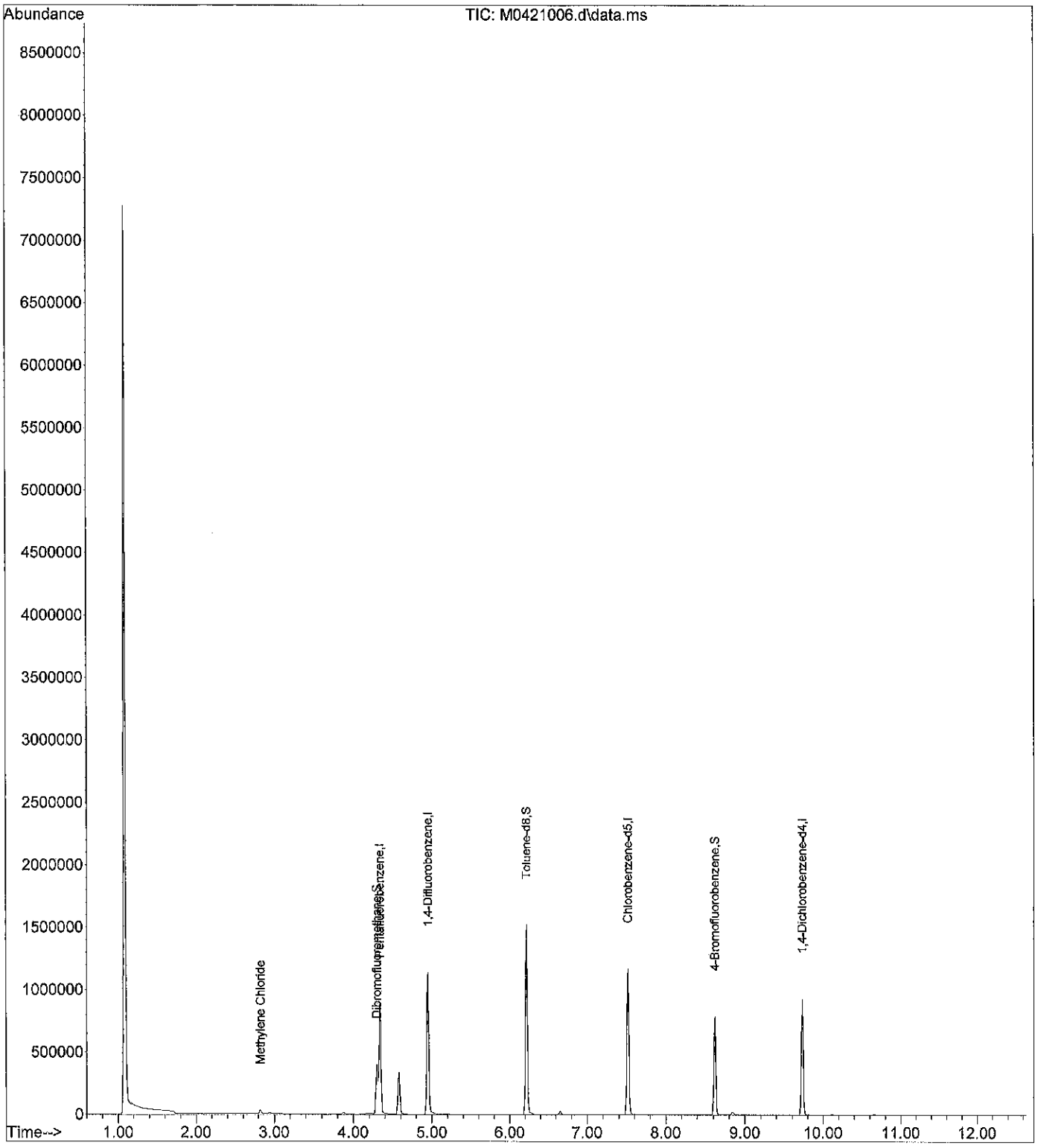
Quant Time: Apr 21 10:26:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

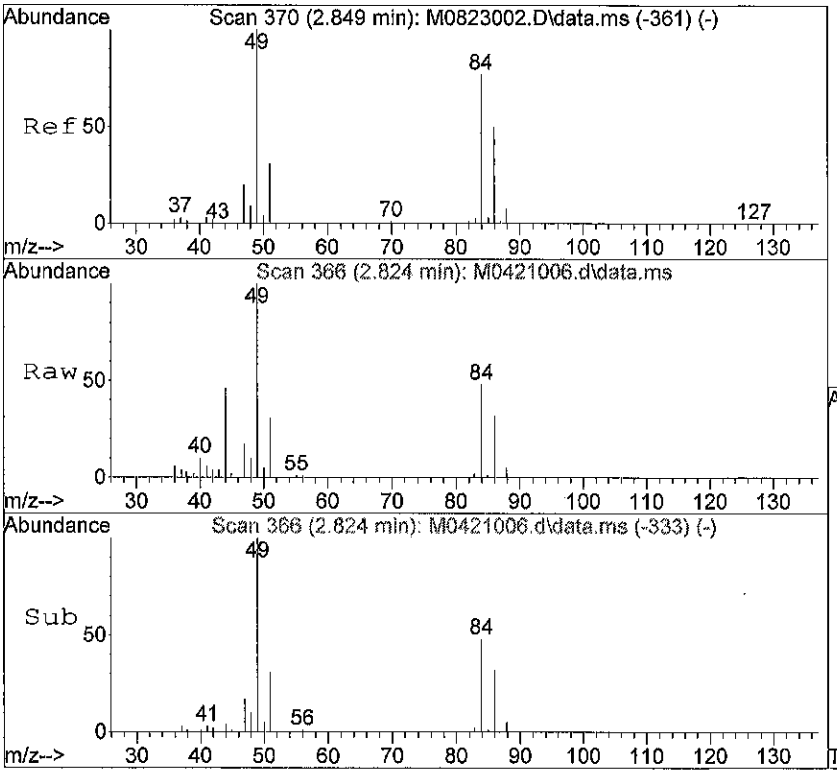
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	575038	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	840158	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	651278	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	255461	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	217851	8.32	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 83.20%			
36) Toluene-d8	6.220	98	948990	9.58	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.80%			
54) 4-Bromofluorobenzene	8.622	95	265186	9.17	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 91.70%			
Target Compounds						Qvalue
12) Methylene Chloride	2.824	49	17830	0.31	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421006.d
Acq On : 21 Apr 2014 9:50 am
Operator :
Sample : MB0421W1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 21 10:26:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

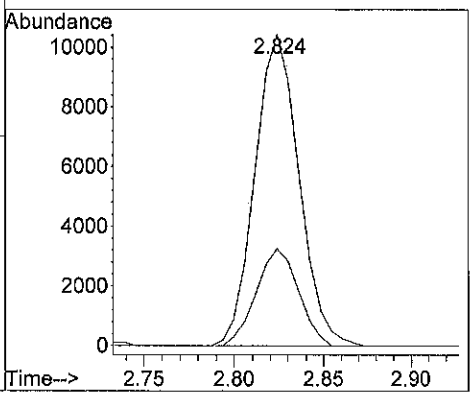




#12
Methylene Chloride
Concen: 0.31 ppb
RT: 2.824 min Scan# 366
Delta R.T. 0.000 min
Lab File: M0421006.d
Acq: 21 Apr 2014 9:50 am

Tgt Ion: 49 Resp: 17830

Ion	Ratio	Lower	Upper
49	100		
51	29.8	24.8	37.2



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421003.d
Acq On : 21 Apr 2014 8:39 am
Operator :
Sample : SB0421W1
Misc : V3-125-5
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 21 09:47:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

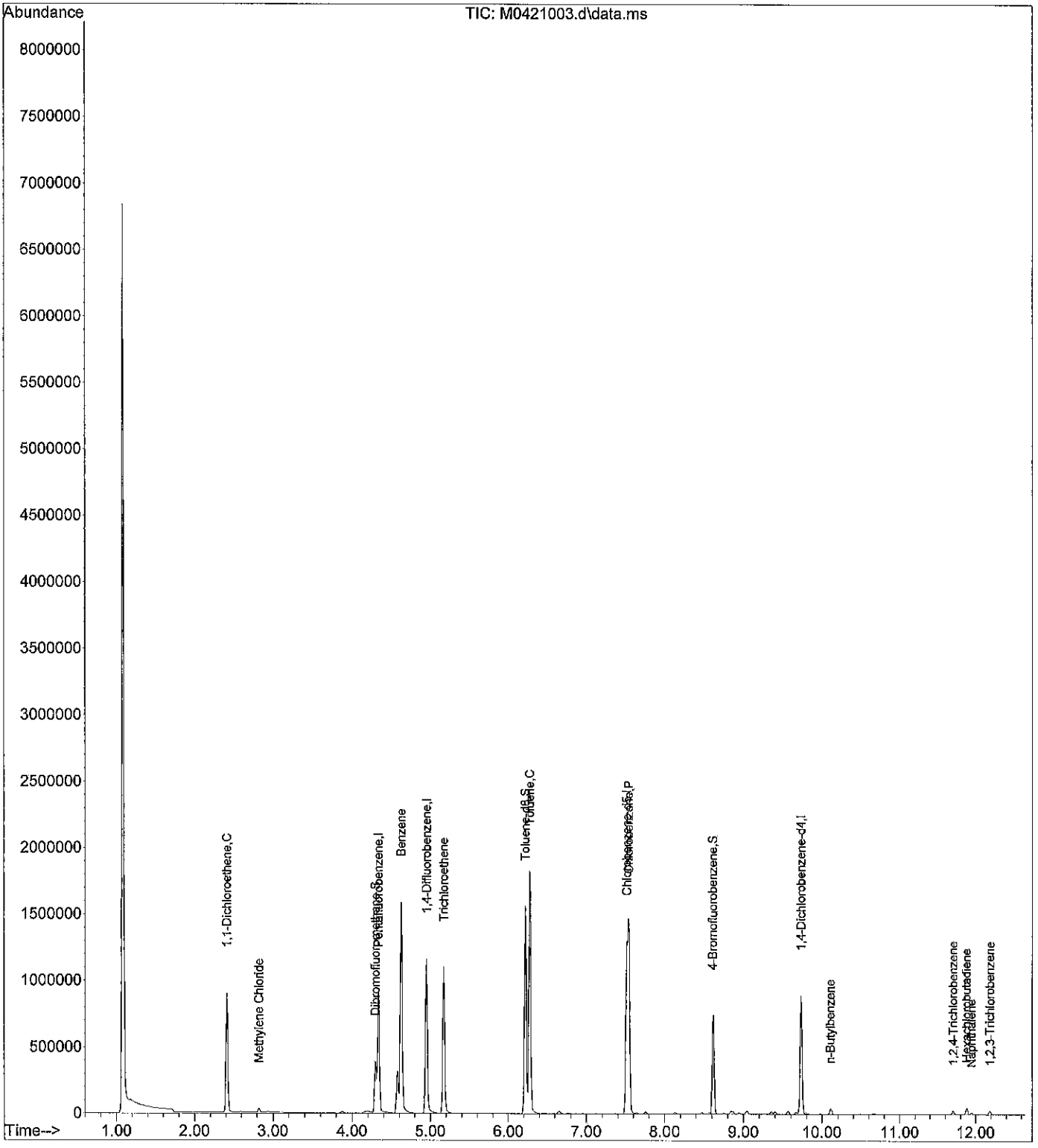
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	583615	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	851796	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	638455	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246954	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	213336	8.03	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.30%				
36) Toluene-d8	6.220	98	956216	9.53	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.30%				
54) 4-Bromofluorobenzene	8.616	95	259203	9.15	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 91.50%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	596716	8.89	ppb		100
12) Methylene Chloride	2.824	49	17811	0.31	ppb		94
26) Benzene	4.629	78	1175699	8.79	ppb		99
29) Trichloroethene	5.171	130	344421	9.17	ppb		99
37) Toluene	6.275	91	1268119	9.15	ppb		99
46) Chlorobenzene	7.543	112	732221	10.30	ppb		100
70) n-Butylbenzene	10.109	91	17669	0.23	ppb		94
72) 1,2,4-Trichlorobenzene	11.706	180	9441	1.22	ppb		98
73) Hexachlorobutadiene	11.877	225	10518	1.45	ppb		97
74) Naphthalene	11.944	128	9910	1.08	ppb		95
75) 1,2,3-Trichlorobenzene	12.188	180	8511	1.80	ppb	#	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421003.d
Acq On : 21 Apr 2014 8:39 am
Operator :
Sample : SB0421W1
Misc : V3-125-5
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 21 09:47:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421007.d
Acq On : 21 Apr 2014 10:13 am
Operator :
Sample : 04-137-01b
Misc :
ALS Vial : 7 Sample Multiplier: 1

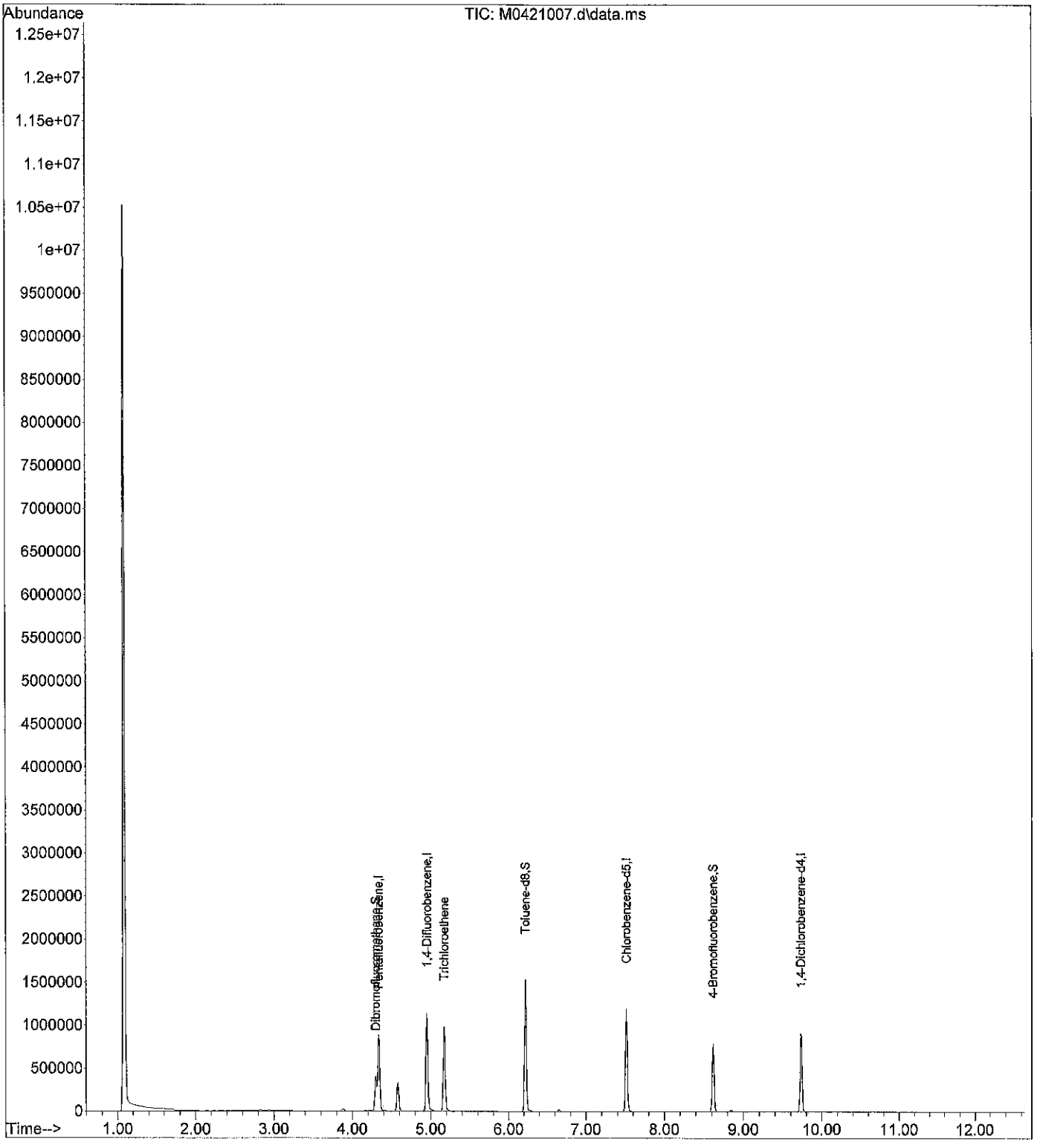
Quant Time: Apr 21 10:27:01 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	572939	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	840580	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	643845	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	248008	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	219418	8.41	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.10%			
36) Toluene-d8	6.220	98	950927	9.60	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.00%			
54) 4-Bromofluorobenzene	8.622	95	265459	9.29	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.90%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	311424	8.40	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421007.d
Acq On : 21 Apr 2014 10:13 am
Operator :
Sample : 04-137-01b
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 21 10:27:01 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421004.d
Acq On : 21 Apr 2014 9:03 am
Operator :
Sample : 04-137-01c MS
Misc : V3-125-5
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 21 09:48:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

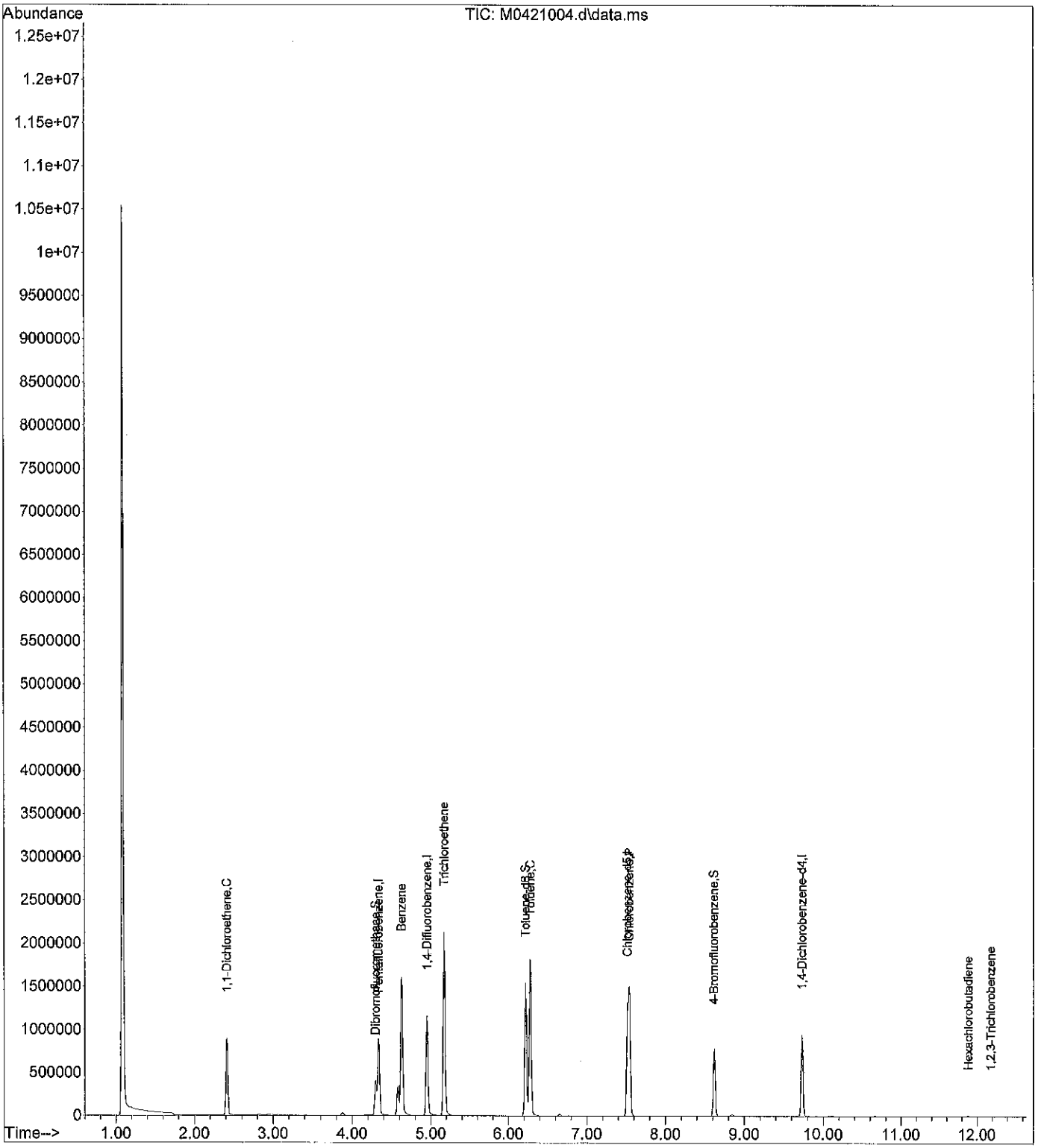
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	577702	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	854037	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	650908	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	257039	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	215973	8.21	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 82.10%				
36) Toluene-d8	6.220	98	954650	9.49	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 94.90%				
54) 4-Bromofluorobenzene	8.616	95	266730	9.23	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.30%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	575059	8.66	ppb		100
26) Benzene	4.629	78	1178102	8.90	ppb		100
29) Trichloroethene	5.171	130	665592	17.67	ppb		100
37) Toluene	6.281	91	1260297	9.07	ppb		99
46) Chlorobenzene	7.543	112	745209	10.28	ppb		100
73) Hexachlorobutadiene	11.883	225	1952	0.26	ppb		93
75) 1,2,3-Trichlorobenzene	12.182	180	1029	0.32	ppb	#	87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421004.d
Acq On : 21 Apr 2014 9:03 am
Operator :
Sample : 04-137-01c MS
Misc : V3-125-5
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 21 09:48:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421005.d
Acq On : 21 Apr 2014 9:26 am
Operator :
Sample : 04-137-01d MSD
Misc : V3-125-5
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 21 09:49:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

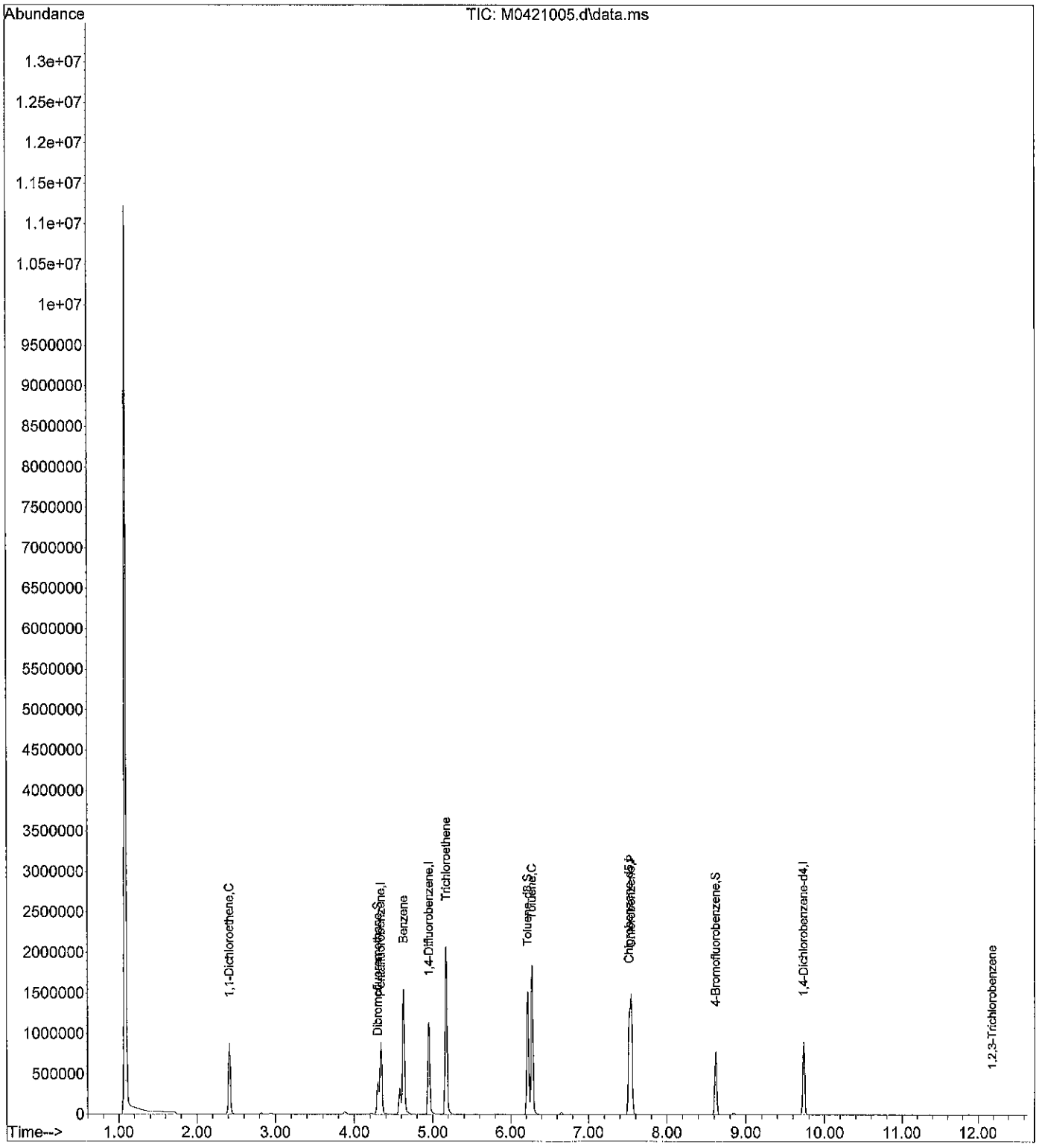
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	582849	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	844413	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	648272	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	251232	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	217940	8.21	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 82.10%				
36) Toluene-d8	6.220	98	946516	9.51	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.10%				
54) 4-Bromofluorobenzene	8.622	95	266697	9.27	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.70%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	569350	8.50	ppb		100
26) Benzene	4.629	78	1165226	8.73	ppb		100
29) Trichloroethene	5.171	130	669894	17.99	ppb		99
37) Toluene	6.275	91	1270584	9.25	ppb		100
46) Chlorobenzene	7.543	112	740051	10.25	ppb		100
75) 1,2,3-Trichlorobenzene	12.182	180	382	0.20	ppb	#	75

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421005.d
Acq On : 21 Apr 2014 9:26 am
Operator :
Sample : 04-137-01d MSD
Misc : V3-125-5
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 21 09:49:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Compound List Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014
Response Via : Initial Calibration

Total Cpnds : 75

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene	168	4.336	1.000	A	0	A	B
2		Dichlorodifluoromethane	85	1.209	0.279	A	1	A	B
3	P	Chloromethane	50	1.343	0.310	A	1	A	B
4	C	Vinyl Chloride	62	1.428	0.329	A	1	A	B
5		Bromomethane	96	1.690	0.390	A	1	A	B
6		Chloroethane	64	1.770	0.408	A	1	A	B
7		Trichlorofluoromethane	101	1.977	0.456	A	1	A	B
8	C	1,1-Dichloroethene	61	2.416	0.557	A	1	A	B
9		Acetone	43	2.471	0.570	L	1	A	B
10		Iodomethane	142	2.538	0.585	L	1	A	B
11		Carbon Disulfide	76	2.593	0.598	A	1	A	B
12		Methylene Chloride	49	2.824	0.651	A	1	A	B
13		(trans) 1,2-Dichloroethene	61	3.056	0.705	A	1	A	B
14		Methyl t-Butyl Ether	73	3.068	0.708	A	3	A	B
15	P	1,1-Dichloroethane	63	3.410	0.786	A	1	A	B
16		Vinyl Acetate	43	3.458	0.798	A	1	A	B
17		2,2-Dichloropropane	77	3.897	0.899	A	1	A	B
18		(cis) 1,2-Dichloroethene	61	3.897	0.899	A	1	A	B
19		2-Butanone	43	3.922	0.905	A	1	A	B
20		Bromochloromethane	130	4.098	0.945	A	3	A	B
21	C	Chloroform	83	4.165	0.961	A	1	A	B
22		1,1,1-Trichloroethane	97	4.318	0.996	A	1	A	B
23	S	Dibromofluoromethane	111	4.300	0.992	A	1	A	B
24		Carbon Tetrachloride	117	4.458	1.028	A	1	A	B
25		1,1-Dichloropropene	75	4.452	1.027	A	1	A	B
26		Benzene	78	4.629	1.068	A	1	A	B
27		1,2-Dichloroethane	62	4.641	1.070	A	1	A	B
28	I	1,4-Difluorobenzene	114	4.952	1.000	A	0	A	B
29		Trichloroethene	130	5.171	1.044	A	1	A	B
30	C	1,2-Dichloropropane	63	5.360	1.082	A	1	A	B
31		Dibromomethane	174	5.464	1.103	A	2	A	B
32		Bromodichloromethane	83	5.598	1.130	A	1	A	B
33		2-Chloroethyl Vinyl Ether	63	5.860	1.183	A	1	A	B
34		(cis) 1,3-Dichloropropene	75	5.982	1.208	A	1	A	B
35		Methyl Isobutyl Ketone	43	6.122	1.236	A	3	A	B
36	S	Toluene-d8	98	6.220	1.256	A	1	A	B
37	C	Toluene	91	6.275	1.267	A	1	A	B
38	I	Chlorobenzene-d5	117	7.518	1.000	A	1	A	B
39		(trans) 1,3-Dichloropropene	75	6.470	0.861	A	1	A	B
40		1,1,2-Trichloroethane	97	6.635	0.883	A	1	A	B
41		Tetrachloroethene	166	6.769	0.900	A	2	A	B
42		1,3-Dichloropropane	76	6.787	0.903	A	1	A	B
43		2-Hexanone	43	6.866	0.913	A	3	A	B
44		Dibromochloromethane	129	6.988	0.930	A	2	A	B
45		1,2-Dibromoethane	107	7.092	0.943	A	1	A	B
46	P	Chlorobenzene	112	7.543	1.003	A	1	A	B
47		1,1,1,2-Tetrachloroethane	133	7.616	1.013	A	2	A	B
48	C	Ethylbenzene	91	7.646	1.017	A	1	A	B
49		m,p-Xylene	91	7.756	1.032	A	1	A	B
50		o-Xylene	91	8.128	1.081	A	1	A	B
51		Styrene	104	8.140	1.083	A	0	A	B
52	P	Bromoform	173	8.311	1.105	A	2	A	B
53		Isopropylbenzene	105	8.476	1.127	A	1	A	B
54	S	4-Bromofluorobenzene	95	8.616	1.146	A	2	A	B

55 I	1,4-Dichlorobenzene-d4	152	9.731	1.000	A	1	A	B
56	Bromobenzene	156	8.762	0.900	A	1	A	B
57 P	1,1,2,2-Tetrachloroethane	83	8.762	0.900	A	1	A	B
58	1,2,3-Trichloropropane	75	8.799	0.904	A	1	A	B
59	n-Propylbenzene	91	8.872	0.912	A	1	A	B
60	2-Chlorotoluene	126	8.951	0.920	A	1	A	B
61	4-Chlorotoluene	126	9.055	0.931	A	1	A	B
62	1,3,5-Trimethylbenzene	105	9.043	0.929	A	1	A	B
63	tert-Butylbenzene	119	9.353	0.961	A	1	A	B
64	1,2,4-Trimethylbenzene	105	9.402	0.966	A	1	A	B
65	sec-Butylbenzene	105	9.567	0.983	A	1	A	B
66	1,3-Dichlorobenzene	146	9.670	0.994	A	1	A	B
67	p-Isopropyltoluene	119	9.713	0.998	A	1	A	B
68	1,4-Dichlorobenzene	146	9.756	1.003	A	1	A	B
69	1,2-Dichlorobenzene	146	10.116	1.040	A	1	A	B
70	n-Butylbenzene	91	10.109	1.039	A	1	A	B
71	1,2-Dibromo-3-chloropropane	157	10.884	1.118	A	2	A	B
72	1,2,4-Trichlorobenzene	180	11.701	1.202	A	2	A	B
73	Hexachlorobutadiene	225	11.883	1.221	A	2	A	B
74	Naphthalene	128	11.944	1.227	A	1	A	B
75	1,2,3-Trichlorobenzene	180	12.182	1.252	L	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

M140328W.M Fri Mar 28 13:13:22 2014

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014
Response Via : Initial Calibration

Calibration Files
.2 =M0328003.d 1 =M0328004.d 2 =M0328005.d 5 =M0328006.d 10 =M0328007.d 25 =M0328009.d
50 =M0328011.d .1 =M0716005.d

		Compound	.2	1	2	5	10	25	50	.1	Avg	%RSD
		ISTD										
1)	I	Pentafluorobenzene										
2)		Dichlorodifluo...	0.731	0.674	0.745	0.721	0.732	0.902	0.866		0.767#	10.86
3)	P	Chloromethane	1.322	1.085	1.163	1.119	1.136	1.255	1.220		1.186	7.07
4)	C	Vinyl Chloride	1.043	0.912	0.981	0.959	0.988	1.068	1.043		0.999#	5.52#
5)		Bromomethane	0.556	0.485	0.468	0.441	0.450	0.468	0.455		0.475#	8.17
6)		Chloroethane	0.625	0.496	0.509	0.492	0.506	0.527	0.513		0.524#	8.82
7)		Trichlorofluor...	1.156	1.019	1.056	1.033	1.070	1.117	1.080		1.076#	4.44
8)	C	1,1-Dichloroet...	1.241	1.098	1.119	1.116	1.139	1.185	1.149		1.150#	4.28#
9)		Acetone		0.091	0.094	0.079	0.071	0.071	0.065		0.079#	15.41
10)		Iodomethane		0.538	0.633	0.703	0.753	0.828	0.787		0.707#	15.14
11)		Carbon Disulfide	1.915	1.725	1.786	1.757	1.809	1.917	1.887		1.828#	4.27
12)		Methylene Chlo...	1.192	0.974	0.974	0.934	0.942	0.966	0.942		0.989#	9.22
13)		(trans) 1,2-Di...	1.274	1.090	1.151	1.091	1.147	1.190	1.161		1.158#	5.43
14)		Methyl t-Butyl...	0.739	0.711	0.732	0.724	0.712	0.737	0.748		0.729#	1.91
15)	P	1,1-Dichloroet...	1.345	1.272	1.313	1.288	1.313	1.365	1.339		1.319	2.47
16)		Vinyl Acetate		0.614	0.569	0.542	0.518	0.545			0.558#	6.53
17)		2,2-Dichloropr...	0.870	0.833	0.840	0.814	0.843	0.864	0.832		0.842#	2.31
18)		(cis) 1,2-Dich...	1.198	1.187	1.196	1.189	1.212	1.281	1.265		1.218#	3.17
19)		2-Butanone	0.125	0.124	0.129	0.120	0.116	0.119	0.113		0.121#	4.60
20)		Bromochloromet...	0.248	0.246	0.258	0.251	0.256	0.264	0.263		0.255#	2.79
21)	C	Chloroform	1.120	1.006	1.026	1.020	1.022	1.063	1.041		1.043#	3.72#
22)		1,1,1-Trichlor...	1.045	0.986	0.979	0.971	1.000	1.040	1.016		1.005#	2.90
23)	S	Dibromofluorom...	0.432	0.452	0.466	0.464	0.455	0.460	0.459		0.455#	2.52
24)		Carbon Tetrach...	1.007	0.907	0.921	0.894	0.918	0.975	0.953		0.939#	4.33
25)		1,1-Dichloropr...	0.957	0.826	0.855	0.825	0.850	0.898	0.887		0.871#	5.40
26)		Benzene	2.426	2.214	2.226	2.215	2.261	2.360	2.336		2.291#	3.64
27)		1,2-Dichloroet...	0.629	0.625	0.641	0.627	0.635	0.651	0.634		0.634#	1.46
		ISTD										
28)	I	1,4-Difluorobenzene										
29)		Trichloroethene	0.485	0.417	0.432	0.425	0.433	0.460	0.435		0.441#	5.29
30)	C	1,2-Dichloropr...	0.380	0.396	0.404	0.399	0.397	0.420	0.421		0.403#	3.55#
31)		Dibromomethane	0.113	0.127	0.135	0.131	0.129	0.135	0.134		0.129#	6.02
32)		Bromodichlorom...	0.366	0.406	0.402	0.392	0.396	0.417	0.423		0.400#	4.69
33)		2-Chloroethyl ...		0.019	0.022	0.020	0.020	0.022	0.026		0.022#	11.46
34)		(cis) 1,3-Dich...	0.357	0.379	0.399	0.410	0.417	0.457	0.460		0.411#	9.25
35)		Methyl Isobuty...	0.150	0.133	0.150	0.144	0.139	0.152	0.162		0.147#	6.45
36)	S	Toluene-d8	1.157	1.169	1.180	1.181	1.176	1.184	1.201		1.178#	1.16
37)	C	Toluene	1.762	1.581	1.569	1.556	1.567	1.668	1.689		1.628#	4.88#

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :

38)	I	Chlorobenzene-d5	ISTD								
39)		(trans) 1,3-Di...	0.329	0.326	0.342	0.341	0.362	0.382	0.382	0.352#	6.74
40)		1,1,2-Trichlor...	0.258	0.200	0.201	0.200	0.200	0.213	0.208	0.212#	10.00
41)		Tetrachloroethene	0.585	0.541	0.533	0.515	0.537	0.563	0.545	0.546#	4.10
42)		1,3-Dichloropr...	0.363	0.346	0.364	0.369	0.371	0.386	0.377	0.368#	3.43
43)		2-Hexanone	0.142	0.125	0.116	0.123	0.117	0.132	0.130	0.126#	7.09
44)		Dibromochlorom...	0.253	0.266	0.266	0.270	0.273	0.293	0.293	0.273#	5.38
45)		1,2-Dibromoethane	0.177	0.186	0.186	0.186	0.183	0.193	0.185	0.185#	2.57
46)	P	Chlorobenzene	1.255	1.079	1.070	1.047	1.080	1.139	1.123	1.113	6.29
47)		1,1,1,2-Tetrac...	0.341	0.354	0.343	0.353	0.362	0.379	0.379	0.359#	4.32
48)	C	Ethylbenzene	2.325	1.997	2.059	2.064	2.191	2.361	2.310	2.186#	6.78#
49)		m,p-Xylene	1.605	1.490	1.545	1.591	1.662	1.789	1.770	1.636#	6.82
50)		o-Xylene	1.494	1.366	1.422	1.447	1.507	1.624	1.603	1.495#	6.27
51)		Styrene	1.023	0.990	1.056	1.103	1.149	1.243	1.236	1.114#	8.97
52)	P	Bromoform	0.125	0.127	0.132	0.139	0.140	0.153	0.158	0.139	9.15
53)		Isopropylbenzene	1.831	1.673	1.754	1.804	1.913	2.064	2.019	1.865#	7.57
54)	S	4-Bromofluorob...	0.413	0.435	0.446	0.452	0.454	0.456	0.452	0.444#	3.48
55)	I	1,4-Dichlorobenzen...	ISTD								
56)		Bromobenzene	1.034	0.877	0.855	0.847	0.875	0.937	0.909	0.905#	7.16
57)	P	1,1,2,2-Tetrac...	0.459	0.445	0.425	0.427	0.414	0.440	0.458	0.438	3.93
58)		1,2,3-Trichlor...	0.352	0.338	0.369	0.338	0.335	0.349	0.341	0.346#	3.40
59)		n-Propylbenzene	6.049	4.935	4.930	4.942	5.346	5.647	5.494	5.335#	8.07
60)		2-Chlorotoluene	1.149	0.992	0.967	0.946	1.025	1.084	1.032	1.028#	6.82
61)		4-Chlorotoluene	1.079	0.964	0.958	0.954	1.011	1.056	1.040	1.009#	5.06
62)		1,3,5-Trimethy...	3.976	3.290	3.584	3.576	3.875	4.120	4.024	3.778#	7.96
63)		tert-Butylbenzene	3.231	2.588	2.781	2.779	3.103	3.224	3.128	2.977#	8.60
64)		1,2,4-Trimethy...	3.625	3.172	3.266	3.380	3.588	3.771	3.711	3.502#	6.57
65)		sec-Butylbenzene	4.557	3.886	3.983	4.040	4.421	4.650	4.517	4.293#	7.30
66)		1,3-Dichlorobe...	1.683	1.484	1.540	1.486	1.544	1.611	1.593	1.563#	4.57
67)		p-Isopropyltol...	3.569	2.941	3.184	3.180	3.473	3.704	3.617	3.381#	8.34
68)		1,4-Dichlorobe...	1.842	1.506	1.586	1.565	1.606	1.679	1.655	1.634#	6.61
69)		1,2-Dichlorobe...	1.147	1.061	1.102	1.111	1.127	1.195	1.194	1.134#	4.31
70)		n-Butylbenzene	3.362	2.757	2.828	2.927	3.122	3.314	3.297	3.086#	8.09
71)		1,2-Dibromo-3-...		0.040	0.049	0.048	0.050	0.056	0.056	0.050#	11.77
72)		1,2,4-Trichlor...	0.294	0.266	0.307	0.323	0.312	0.332	0.356	0.313#	9.10
73)		Hexachlorobuta...	0.353	0.269	0.277	0.291	0.281	0.290	0.290	0.293#	9.51
74)		Naphthalene		0.325	0.338	0.368	0.366	0.397	0.439	0.372#	11.18
75)		1,2,3-Trichlor...	0.123	0.149	0.177	0.203	0.199	0.196	0.211	0.180#	18.07

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	485934	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	740470	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	555715	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	198284	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.293	111	209890	9.62	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery	= 96.20%			
36) Toluene-d8	6.220	98	856932	9.84	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery	= 98.40%			
54) 4-Bromofluorobenzene	8.616	95	229303	9.00	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery	= 90.00%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	7107	0.19	ppb		100
3) Chloromethane	1.343	50	12848	0.22	ppb		100
4) Vinyl Chloride	1.428	62	10132	0.21	ppb		92
5) Bromomethane	1.684	96	5406	0.24	ppb		94
6) Chloroethane	1.763	64	6077	0.24	ppb		98
7) Trichlorofluoromethane	1.977	101	11235	0.22	ppb		97
8) 1,1-Dichloroethene	2.416	61	12064	0.22	ppb		99
9) ~~Acetone~~	2.465	43	3046	0.32	ppb		92
10) ~~Iodomethane~~	2.538	142	4255	0.53	ppb		96
11) Carbon Disulfide	2.593	76	18609	0.21	ppb		95
12) Methylene Chloride	2.824	49	11589	0.24	ppb		97
13) (trans) 1,2-Dichloroet...	3.056	61	12377	0.23	ppb		99
14) Methyl t-Butyl Ether	3.068	73	7179	0.20	ppb	#	88
15) 1,1-Dichloroethane	3.410	63	13071	0.21	ppb		96
16) ~~Vinyl Acetate~~	3.458	43	7482	0.66	ppb	#	81
17) 2,2-Dichloropropane	3.891	77	8459	0.20	ppb	#	78
18) (cis) 1,2-Dichloroethene	3.897	61	11646	0.20	ppb		96
19) 2-Butanone	3.916	43	1217	0.21	ppb	#	52
20) Bromochloromethane	4.092	130	2414	0.20	ppb		97
21) Chloroform	4.165	83	10889	0.22	ppb		98
22) 1,1,1-Trichloroethane	4.312	97	10155	0.21	ppb	#	1
24) Carbon Tetrachloride	4.452	117	9784	0.22	ppb		98
25) 1,1-Dichloropropene	4.452	75	9303	0.22	ppb		95
26) Benzene	4.629	78	23574	0.22	ppb		97
27) 1,2-Dichloroethane	4.641	62	6112	0.20	ppb		94
29) Trichloroethene	5.171	130	7176	0.23	ppb		90
30) 1,2-Dichloropropane	5.360	63	5631	0.19	ppb		95
31) Dibromomethane	5.458	174	1675	0.17	ppb	#	91
32) Bromodichloromethane	5.598	83	5416	0.18	ppb		91
33) ~~2-Chloroethyl Vinyl Ether~~	5.860	63	266	2.33	ppb	#	66
34) (cis) 1,3-Dichloropropene	5.982	75	5288	0.17	ppb		97
35) Methyl Isobutyl Ketone	6.122	43	2224	0.21	ppb	#	86
37) Toluene	6.275	91	26096	0.22	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	3652	0.19	ppb		95
40) 1,1,2-Trichloroethane	6.634	97	2870	0.25	ppb	#	81
41) Tetrachloroethene	6.763	166	6500	0.21	ppb		92
42) 1,3-Dichloropropane	6.787	76	4030	0.20	ppb		90
43) 2-Hexanone	6.866	43	1575	0.23	ppb	#	69
44) Dibromochloromethane	6.988	129	2814	0.19	ppb		95

SP 3-28-14

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	1962	0.20	ppb		100
46) Chlorobenzene	7.543	112	13952	0.23	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	3793	0.19	ppb		84
48) Ethylbenzene	7.646	91	25838	0.21	ppb		100
49) m,p-Xylene	7.756	91	35667	0.38	ppb		97
50) o-Xylene	8.128	91	16600	0.19	ppb		100
51) Styrene	8.140	104	11365	0.18	ppb		100
52) Bromoform	8.311	173	1384	0.18	ppb		93
53) Isopropylbenzene	8.476	105	20353	0.19	ppb		96
56) Bromobenzene	8.762	156	4101	0.24	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	1819	0.22	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	1394	0.22	ppb	#	100
59) n-Propylbenzene	8.872	91	23987	0.24	ppb		96
60) 2-Chlorotoluene	8.951	126	4557	0.23	ppb		98
61) 4-Chlorotoluene	9.055	126	4278	0.22	ppb		96
62) 1,3,5-Trimethylbenzene	9.043	105	15766	0.21	ppb		96
63) tert-Butylbenzene	9.353	119	12815	0.22	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	14377	0.20	ppb		97
65) sec-Butylbenzene	9.567	105	18071	0.21	ppb		96
66) 1,3-Dichlorobenzene	9.670	146	6674	0.21	ppb		100
67) p-Isopropyltoluene	9.713	119	14152	0.20	ppb		98
68) 1,4-Dichlorobenzene	9.756	146	7304	0.22	ppb		92
69) 1,2-Dichlorobenzene	10.116	146	4547	0.19	ppb		99
70) n-Butylbenzene	10.109	91	13331	0.20	ppb		99
72) 1,2,4-Trichlorobenzene	11.707	180	1167	0.10	ppb		93
73) Hexachlorobutadiene	11.877	225	1401	0.12	ppb		95
74) Naphthalene	11.944	128	1039	0.61	ppb	#	72
75) 1,2,3-Trichlorobenzene	12.188	180	489	0.21	ppb	#	67

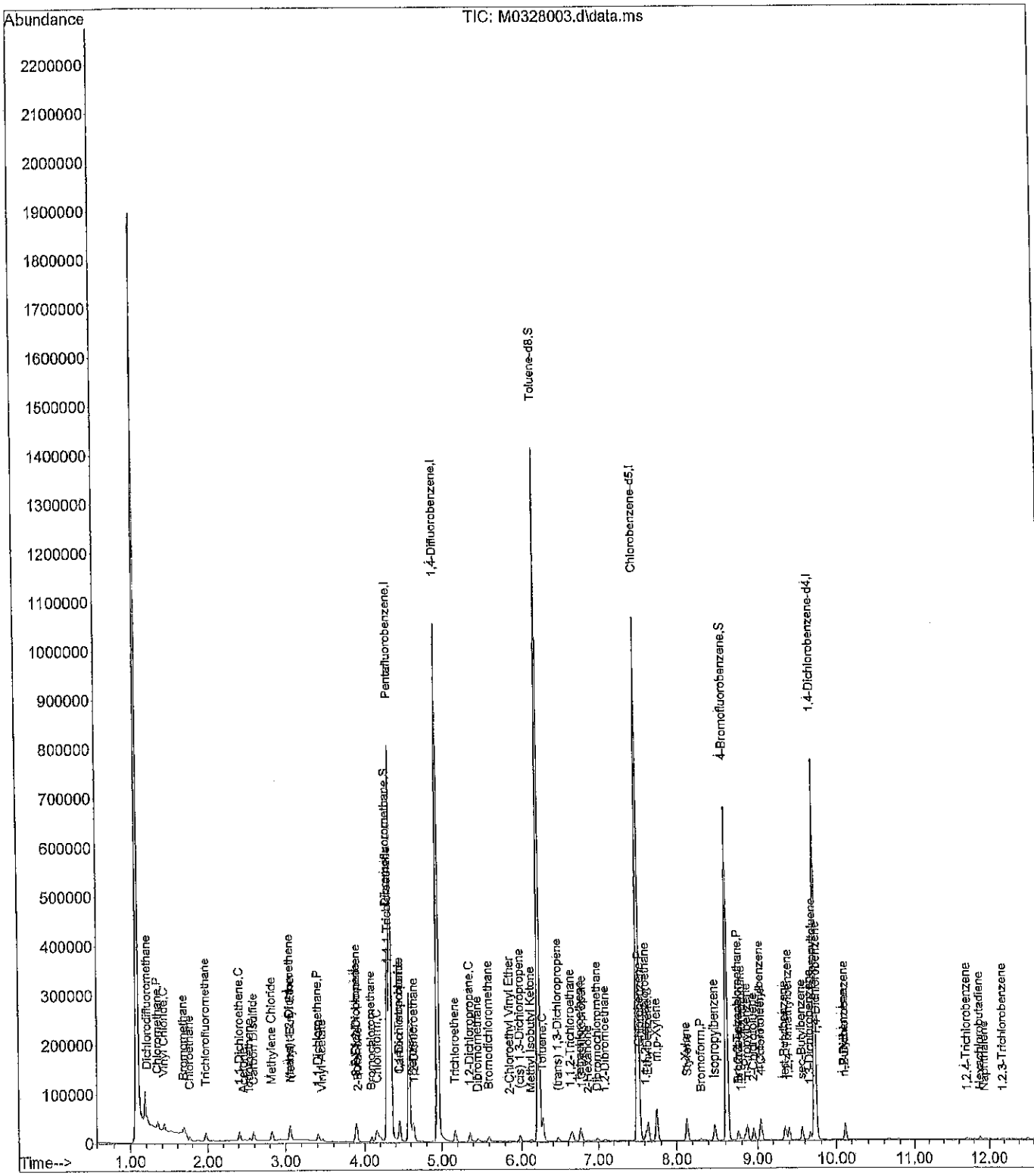
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SP 3.8674

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	481933	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	739712	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	582356	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	231509	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	217611	10.05	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.50%				
36) Toluene-d8	6.220	98	864840	9.94	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.40%				
54) 4-Bromofluorobenzene	8.622	95	253379	9.49	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.208	85	32485	0.86	ppb		98
3) Chloromethane	1.343	50	52278	0.91	ppb		94
4) Vinyl Chloride	1.428	62	43937	0.93	ppb		97
5) Bromomethane	1.684	96	23394	1.06	ppb		100
6) Chloroethane	1.769	64	23889	0.96	ppb		100
7) Trichlorofluoromethane	1.977	101	49091	0.95	ppb		97
8) 1,1-Dichloroethene	2.416	61	52907	0.97	ppb		100
9) Acetone	2.470	43	4405	0.76	ppb		99
10) Iodomethane	2.537	142	25915	1.10	ppb		95
11) Carbon Disulfide	2.592	76	83153	0.97	ppb		100
12) Methylene Chloride	2.824	49	46955	0.99	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	52507	0.97	ppb		97
14) Methyl t-Butyl Ether	3.068	73	34289	0.98	ppb		96
15) 1,1-Dichloroethane	3.409	63	61308	0.98	ppb		99
16) Vinyl Acetate	3.458	43	29613	1.27	ppb		98
17) 2,2-Dichloropropane	3.891	77	40125	0.98	ppb		97
18) (cis) 1,2-Dichloroethene	3.897	61	57200	0.99	ppb		99
19) 2-Butanone	3.921	43	5999	1.04	ppb		92
20) Bromochloromethane	4.098	130	11861	0.97	ppb		99
21) Chloroform	4.165	83	48474	0.99	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	47516	0.98	ppb	#	1
24) Carbon Tetrachloride	4.458	117	43733	0.97	ppb		94
25) 1,1-Dichloropropene	4.452	75	39817	0.96	ppb		97
26) Benzene	4.629	78	106694	0.99	ppb		99
27) 1,2-Dichloroethane	4.641	62	30108	1.00	ppb		99
29) Trichloroethene	5.171	130	30865	0.98	ppb		99
30) 1,2-Dichloropropane	5.360	63	29302	0.98	ppb		100
31) Dibromomethane	5.464	174	9426	0.98	ppb		96
32) Bromodichloromethane	5.598	83	30058	1.02	ppb		97
33) 2-Chloroethyl Vinyl Ether	5.860	63	1418	3.82	ppb		99
34) (cis) 1,3-Dichloropropene	5.982	75	28003	0.90	ppb		98
35) Methyl Isobutyl Ketone	6.122	43	9833	0.91	ppb		97
37) Toluene	6.275	91	116964	0.97	ppb		97
39) (trans) 1,3-Dichloropr...	6.470	75	18996	0.93	ppb		96
40) 1,1,2-Trichloroethane	6.634	97	11672	0.96	ppb		94
41) Tetrachloroethene	6.768	166	31504	0.98	ppb		97
42) 1,3-Dichloropropane	6.787	76	20143	0.94	ppb		99
43) 2-Hexanone	6.866	43	7271	1.02	ppb	#	92
44) Dibromochloromethane	6.988	129	15481	0.97	ppb		95

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

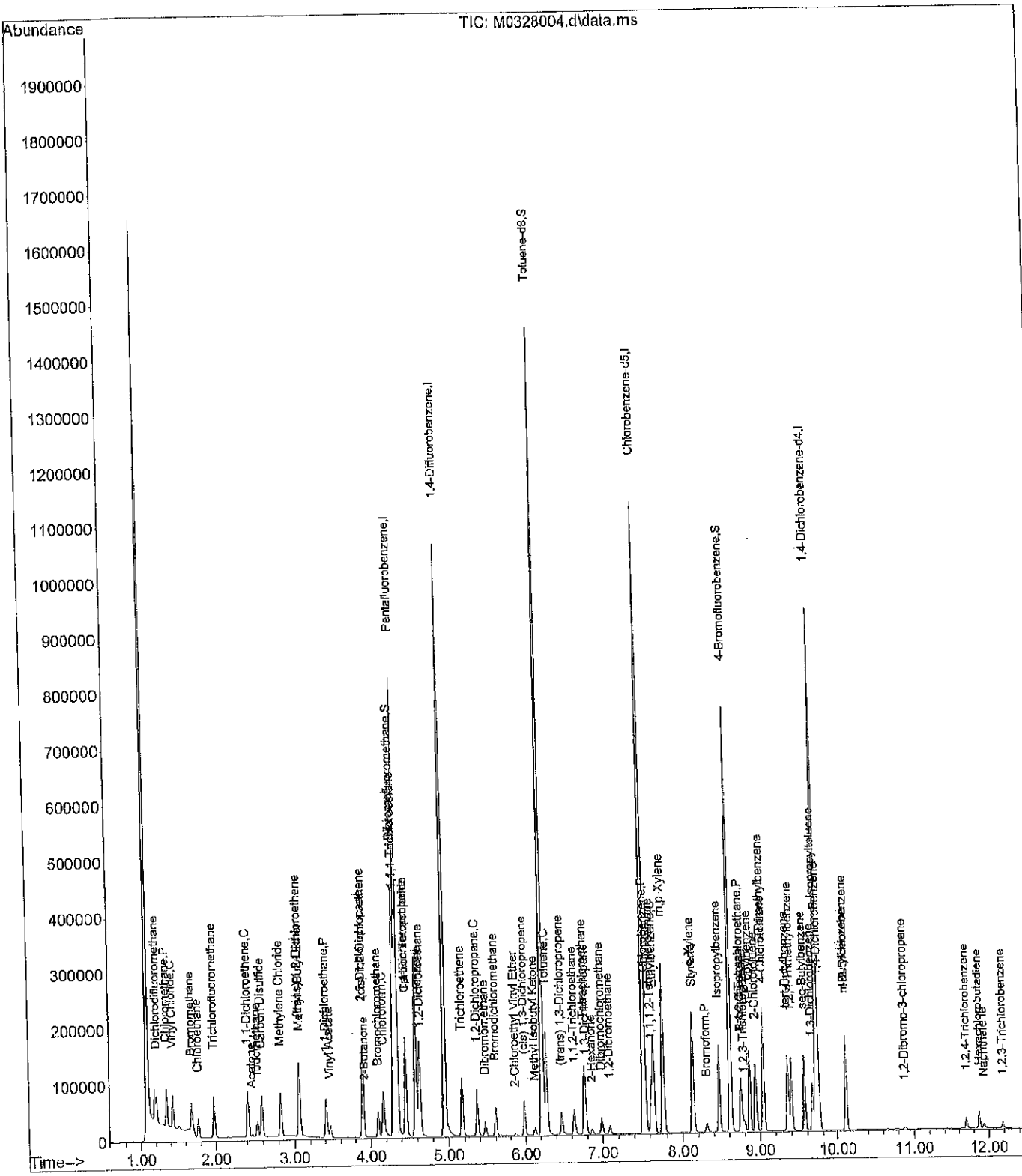
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.091	107	10813	1.03	ppb		89
46) Chlorobenzene	7.543	112	62839	0.97	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	20602	0.97	ppb		97
48) Ethylbenzene	7.646	91	116277	0.89	ppb		100
49) m,p-Xylene	7.756	91	173593	1.77	ppb		100
50) o-Xylene	8.128	91	79577	0.88	ppb		99
51) Styrene	8.140	104	57652	0.86	ppb		100
52) Bromoform	8.311	173	7371	0.89	ppb		96
53) Isopropylbenzene	8.475	105	97419	0.85	ppb		98
56) Bromobenzene	8.762	156	20310	1.04	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	10308	1.07	ppb		93
58) 1,2,3-Trichloropropane	8.798	75	7814	1.06	ppb	#	100
59) n-Propylbenzene	8.872	91	114247	0.97	ppb		99
60) 2-Chlorotoluene	8.951	126	22971	1.01	ppb		99
61) 4-Chlorotoluene	9.055	126	22328	0.99	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	76170	0.87	ppb		99
63) tert-Butylbenzene	9.353	119	59923	0.88	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	73440	0.87	ppb		98
65) sec-Butylbenzene	9.567	105	89955	0.89	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	34360	0.92	ppb		100
67) p-Isopropyltoluene	9.713	119	68086	0.82	ppb		97
68) 1,4-Dichlorobenzene	9.756	146	34860	0.89	ppb		94
69) 1,2-Dichlorobenzene	10.115	146	24567	0.87	ppb		100
70) n-Butylbenzene	10.109	91	63817	0.81	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.883	157	932	0.72	ppb	#	64
72) 1,2,4-Trichlorobenzene	11.706	180	6168	0.46	ppb		90
73) Hexachlorobutadiene	11.883	225	6218	0.47	ppb		97
74) Naphthalene	11.944	128	7514	0.99	ppb	#	94
75) 1,2,3-Trichlorobenzene	12.188	180	3448	0.52	ppb		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	479547	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	741239	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	592815	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	240183	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	223417	10.37	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.70%				
36) Toluene-d8	6.220	98	874445	10.03	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.30%				
54) 4-Bromofluorobenzene	8.622	95	264503	9.74	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	71435	1.89	ppb		100
3) Chloromethane	1.343	50	111552	1.95	ppb		100
4) Vinyl Chloride	1.428	62	94040	2.00	ppb		99
5) Bromomethane	1.690	96	44871	2.05	ppb		99
6) Chloroethane	1.769	64	48789	1.97	ppb		96
7) Trichlorofluoromethane	1.977	101	101236	1.97	ppb		99
8) 1,1-Dichloroethene	2.416	61	107339	1.98	ppb		100
9) Acetone	2.470	43	9060	2.24	ppb		96
10) Iodomethane	2.538	142	60687	2.01	ppb		99
11) Carbon Disulfide	2.592	76	171279	2.00	ppb		97
12) Methylene Chloride	2.824	49	93388	1.98	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	110387	2.06	ppb		100
14) Methyl t-Butyl Ether	3.068	73	70253	2.02	ppb		98
15) 1,1-Dichloroethane	3.409	63	125922	2.02	ppb		98
16) Vinyl Acetate	3.458	43	54537	1.97	ppb		98
17) 2,2-Dichloropropane	3.891	77	80592	1.97	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	114722	1.99	ppb		99
19) 2-Butanone	3.921	43	12367	2.16	ppb		91
20) Bromochloromethane	4.098	130	24764	2.04	ppb		97
21) Chloroform	4.165	83	98372	2.01	ppb		98
22) 1,1,1-Trichloroethane	4.318	97	93941	1.95	ppb	#	1
24) Carbon Tetrachloride	4.458	117	88301	1.97	ppb		100
25) 1,1-Dichloropropene	4.452	75	82043	1.99	ppb		100
26) Benzene	4.629	78	213449	1.99	ppb		100
27) 1,2-Dichloroethane	4.641	62	61512	2.06	ppb		99
29) Trichloroethene	5.171	130	64112	2.02	ppb		93
30) 1,2-Dichloropropane	5.360	63	59895	2.01	ppb		100
31) Dibromomethane	5.464	174	20052	2.08	ppb		99
32) Bromodichloromethane	5.598	83	59547	2.02	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	3284	6.24	ppb		100
34) (cis) 1,3-Dichloropropene	5.982	75	59196	1.90	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	22165	2.05	ppb		98
37) Toluene	6.275	91	232630	1.92	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	40523	1.94	ppb		100
40) 1,1,2-Trichloroethane	6.634	97	23818	1.92	ppb		94
41) Tetrachloroethene	6.768	166	63251	1.94	ppb		98
42) 1,3-Dichloropropane	6.787	76	43185	1.98	ppb		99
43) 2-Hexanone	6.866	43	13779	1.89	ppb		99
44) Dibromochloromethane	6.988	129	31574	1.95	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

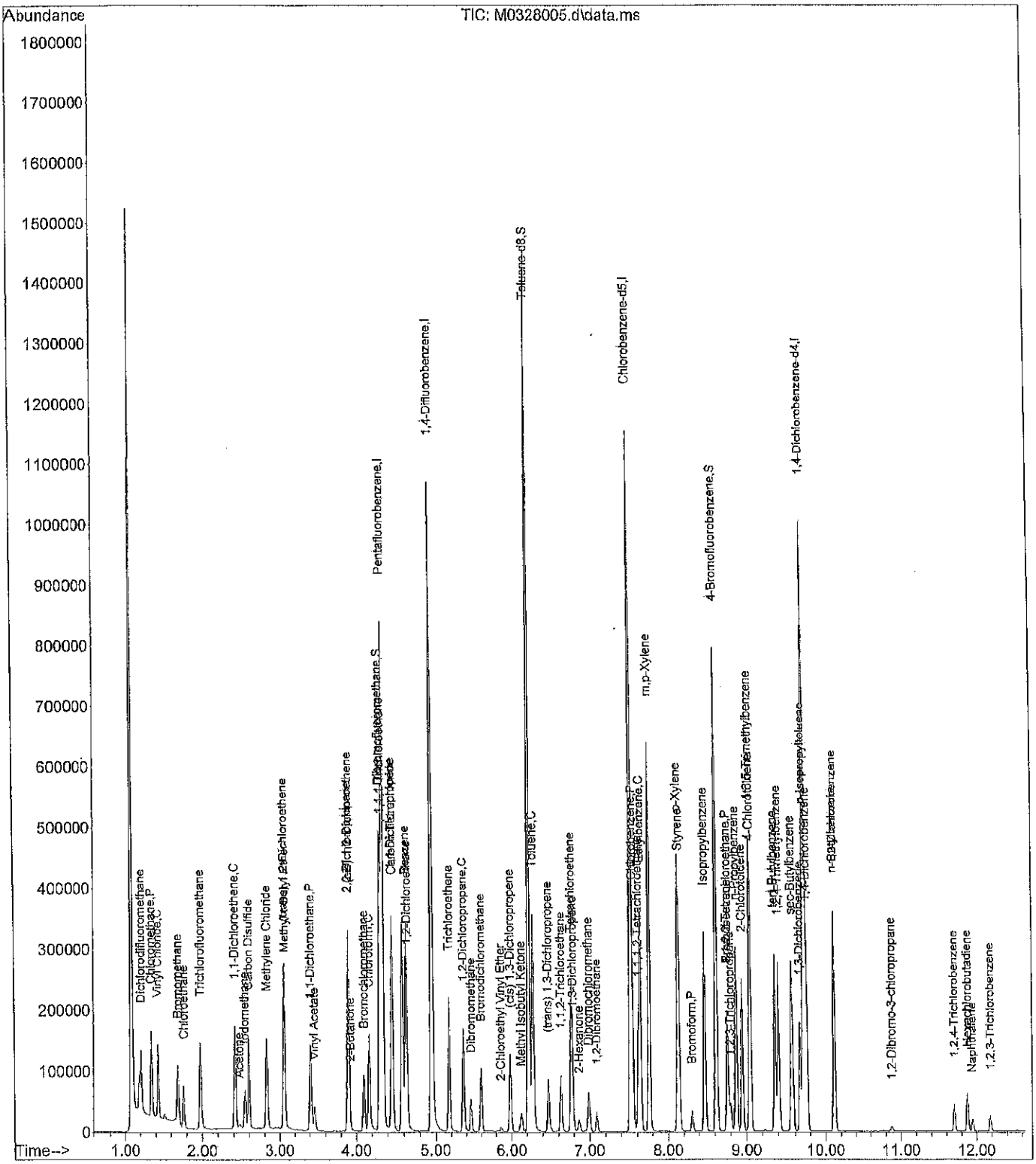
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	22108	2.07	ppb		94
46) Chlorobenzene	7.543	112	126905	1.93	ppb		98
47) 1,1,1,2-Tetrachloroethane	7.616	133	40634	1.89	ppb		97
48) Ethylbenzene	7.646	91	244080	1.84	ppb		99
49) m,p-Xylene	7.756	91	366249	3.67	ppb		100
50) o-Xylene	8.128	91	168553	1.82	ppb		99
51) Styrene	8.140	104	125222	1.84	ppb		100
52) Bromoform	8.311	173	15623	1.86	ppb		98
53) Isopropylbenzene	8.475	105	207918	1.79	ppb		99
56) Bromobenzene	8.762	156	41070	2.02	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	20399	2.05	ppb		97
58) 1,2,3-Trichloropropane	8.799	75	17704	2.32	ppb	#	100
59) n-Propylbenzene	8.872	91	236825	1.94	ppb		99
60) 2-Chlorotoluene	8.951	126	46452	1.98	ppb		97
61) 4-Chlorotoluene	9.055	126	46002	1.98	ppb		95
62) 1,3,5-Trimethylbenzene	9.042	105	172160	1.90	ppb		100
63) tert-Butylbenzene	9.353	119	133577	1.88	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	156865	1.80	ppb		98
65) sec-Butylbenzene	9.567	105	191336	1.83	ppb		100
66) 1,3-Dichlorobenzene	9.670	146	73967	1.92	ppb		96
67) p-Isopropyltoluene	9.713	119	152932	1.78	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	76190	1.87	ppb		96
69) 1,2-Dichlorobenzene	10.115	146	52952	1.80	ppb		99
70) n-Butylbenzene	10.109	91	135827	1.67	ppb		98
71) 1,2-Dibromo-3-chloropr...	10.883	157	2368	1.76	ppb		98
72) 1,2,4-Trichlorobenzene	11.706	180	14738	1.05	ppb		94
73) Hexachlorobutadiene	11.883	225	13288	0.97	ppb		99
74) Naphthalene	11.944	128	16224	1.48	ppb		97
75) 1,2,3-Trichlorobenzene	12.188	180	8510	1.04	ppb		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	487403	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	747722	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	596122	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	250793	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	226293	10.34	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.40%				
36) Toluene-d8	6.220	98	883353	10.04	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.40%				
54) 4-Bromofluorobenzene	8.616	95	269266	9.86	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	175706	4.58	ppb		100
3) Chloromethane	1.343	50	272665	4.68	ppb		99
4) Vinyl Chloride	1.428	62	233677	4.89	ppb		100
5) Bromomethane	1.684	96	107522	4.84	ppb		99
6) Chloroethane	1.770	64	119788	4.76	ppb		100
7) Trichlorofluoromethane	1.977	101	251859	4.81	ppb		99
8) 1,1-Dichloroethene	2.416	61	271961	4.94	ppb		98
9) Acetone	2.471	43	19243	5.36	ppb		100
10) Iodomethane	2.538	142	171354	4.82	ppb		99
11) Carbon Disulfide	2.593	76	428232	4.92	ppb		100
12) Methylene Chloride	2.824	49	227594	4.76	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	265907	4.87	ppb		98
14) Methyl t-Butyl Ether	3.068	73	176485	4.99	ppb		98
15) 1,1-Dichloroethane	3.409	63	313941	4.94	ppb		98
16) Vinyl Acetate	3.458	43	132036	4.05	ppb		100
17) 2,2-Dichloropropane	3.891	77	198435	4.78	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	289717	4.95	ppb		100
19) 2-Butanone	3.922	43	29280	5.04	ppb		95
20) Bromochloromethane	4.098	130	61061	4.94	ppb		97
21) Chloroform	4.165	83	248538	5.00	ppb		100
22) 1,1,1-Trichloroethane	4.318	97	236699	4.83	ppb	#	48
24) Carbon Tetrachloride	4.458	117	217779	4.78	ppb		99
25) 1,1-Dichloropropene	4.452	75	201088	4.81	ppb		99
26) Benzene	4.629	78	539722	4.94	ppb		100
27) 1,2-Dichloroethane	4.641	62	152728	5.02	ppb		100
29) Trichloroethene	5.171	130	158883	4.97	ppb		97
30) 1,2-Dichloropropane	5.360	63	149194	4.96	ppb		98
31) Dibromomethane	5.464	174	48876	5.02	ppb		96
32) Bromodichloromethane	5.598	83	146557	4.93	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	7478	11.60	ppb	#	90
34) (cis) 1,3-Dichloropropene	5.982	75	153320	4.87	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	53853	4.94	ppb		96
37) Toluene	6.275	91	581598	4.77	ppb		98
39) (trans) 1,3-Dichloropr...	6.470	75	101688	4.84	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	59584	4.77	ppb		96
41) Tetrachloroethene	6.769	166	153550	4.68	ppb		99
42) 1,3-Dichloropropane	6.787	76	109881	5.00	ppb		100
43) 2-Hexanone	6.866	43	36571	4.99	ppb	#	97
44) Dibromochloromethane	6.988	129	80368	4.94	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

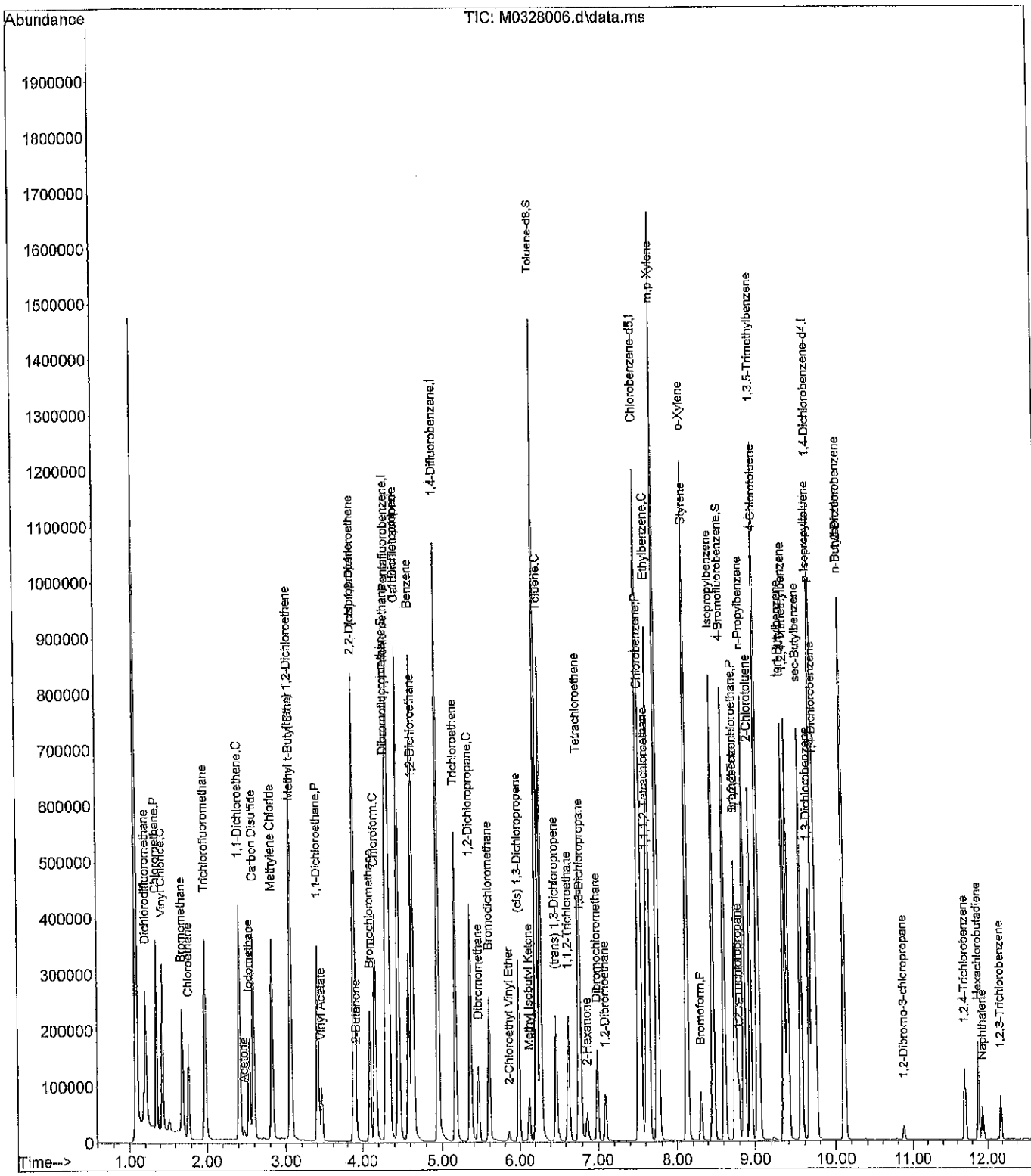
Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	55408	5.15	ppb		94
46) Chlorobenzene	7.543	112	312120	4.72	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	105314	4.86	ppb		100
48) Ethylbenzene	7.646	91	615237	4.61	ppb		100
49) m,p-Xylene	7.756	91	948174	9.45	ppb		100
50) o-Xylene	8.128	91	431278	4.64	ppb		99
51) Styrene	8.140	104	328797	4.81	ppb		100
52) Bromoform	8.311	173	41308	4.89	ppb		97
53) Isopropylbenzene	8.476	105	537723	4.60	ppb		100
56) Bromobenzene	8.762	156	106237	5.00	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	53508	5.15	ppb		95
58) 1,2,3-Trichloropropane	8.799	75	42362	5.32	ppb	#	100
59) n-Propylbenzene	8.872	91	619715	4.86	ppb		99
60) 2-Chlorotoluene	8.951	126	118651	4.84	ppb		99
61) 4-Chlorotoluene	9.055	126	119653	4.92	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	448413	4.74	ppb		99
63) tert-Butylbenzene	9.353	119	348521	4.70	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	423815	4.65	ppb		100
65) sec-Butylbenzene	9.567	105	506584	4.64	ppb		100
66) 1,3-Dichlorobenzene	9.670	146	186299	4.62	ppb		98
67) p-Isopropyltoluene	9.713	119	398736	4.45	ppb		98
68) 1,4-Dichlorobenzene	9.756	146	196227	4.62	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	139284	4.54	ppb		98
70) n-Butylbenzene	10.109	91	366974	4.31	ppb		100
71) 1,2-Dibromo-3-chloropr...	10.884	157	6040	4.30	ppb		92
72) 1,2,4-Trichlorobenzene	11.707	180	40513	2.76	ppb		97
73) Hexachlorobutadiene	11.883	225	36435	2.56	ppb		98
74) Naphthalene	11.944	128	46161	3.10	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	25509	2.71	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	489227	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	759757	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	599575	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246718	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	222542	10.13	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 101.30%				
36) Toluene-d8	6.220	98	893363	10.00	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.00%				
54) 4-Bromofluorobenzene	8.616	95	271986	9.90	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	358326	9.31	ppb		100
3) Chloromethane	1.343	50	555937	9.51	ppb		99
4) Vinyl Chloride	1.428	62	483276	10.07	ppb		100
5) Bromomethane	1.690	96	219911	9.85	ppb		100
6) Chloroethane	1.770	64	247386	9.79	ppb		100
7) Trichlorofluoromethane	1.977	101	523334	9.97	ppb		100
8) 1,1-Dichloroethene	2.416	61	557386	10.08	ppb		99
9) Acetone	2.471	43	34774	10.16	ppb		99
10) Iodomethane	2.538	142	368612	9.85	ppb		99
11) Carbon Disulfide	2.593	76	884927	10.14	ppb		99
12) Methylene Chloride	2.824	49	460832	9.60	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	560950	10.24	ppb		100
14) Methyl t-Butyl Ether	3.068	73	348111	9.80	ppb		99
15) 1,1-Dichloroethane	3.410	63	642292	10.08	ppb		100
16) Vinyl Acetate	3.458	43	253649	7.34	ppb		99
17) 2,2-Dichloropropane	3.897	77	412258	9.89	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	592869	10.09	ppb		99
19) 2-Butanone	3.922	43	56987	9.78	ppb		98
20) Bromochloromethane	4.098	130	125464	10.11	ppb		99
21) Chloroform	4.165	83	500093	10.03	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	488995	9.94	ppb		98
24) Carbon Tetrachloride	4.458	117	448921	9.82	ppb		98
25) 1,1-Dichloropropene	4.452	75	415631	9.89	ppb		99
26) Benzene	4.629	78	1106258	10.09	ppb		99
27) 1,2-Dichloroethane	4.641	62	310436	10.17	ppb		100
29) Trichloroethene	5.171	130	328989	10.12	ppb		99
30) 1,2-Dichloropropane	5.360	63	301712	9.86	ppb		99
31) Dibromomethane	5.464	174	97928	9.89	ppb		99
32) Bromodichloromethane	5.598	83	300904	9.96	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	14914	20.86	ppb	#	88
34) (cis) 1,3-Dichloropropene	5.982	75	316852	9.91	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	105947	9.57	ppb		99
37) Toluene	6.275	91	1190855	9.61	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	217027	10.28	ppb		98
40) 1,1,2-Trichloroethane	6.635	97	120206	9.58	ppb		97
41) Tetrachloroethene	6.769	166	321992	9.76	ppb		99
42) 1,3-Dichloropropane	6.787	76	222149	10.05	ppb		99
43) 2-Hexanone	6.866	43	70181	9.53	ppb		98
44) Dibromochloromethane	6.988	129	163728	10.00	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

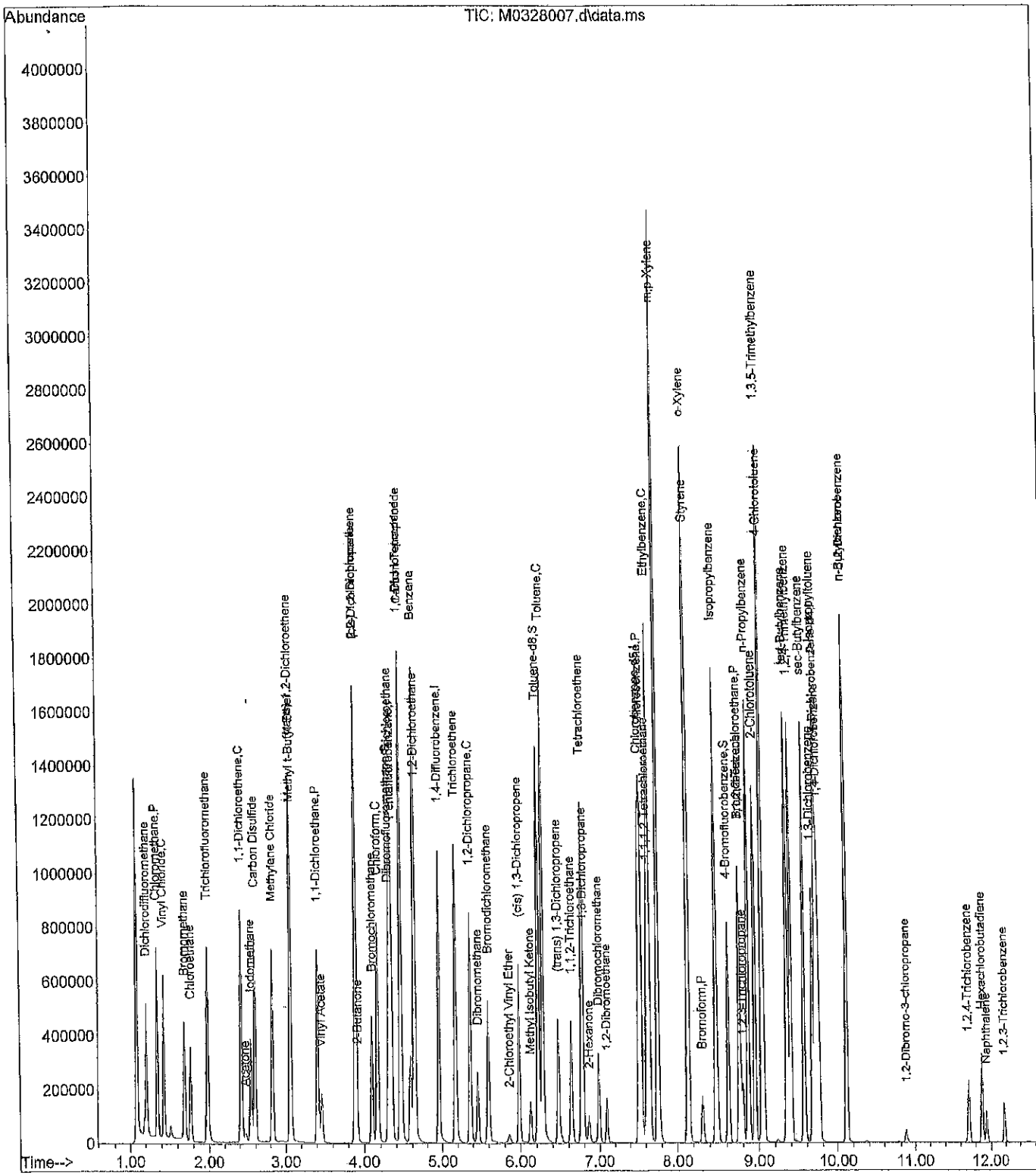
Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	1,2-Dibromoethane	7.092	107	109725	10.14	ppb		97
46)	Chlorobenzene	7.543	112	647533	9.74	ppb		100
47)	1,1,1,2-Tetrachloroethane	7.616	133	217287	9.97	ppb		98
48)	Ethylbenzene	7.646	91	1313400	9.79	ppb		100
49)	m,p-Xylene	7.756	91	1993585	19.75	ppb		99
50)	o-Xylene	8.128	91	903632	9.66	ppb		98
51)	Styrene	8.140	104	688761	10.02	ppb		100
52)	Bromoform	8.311	173	83704	9.85	ppb		97
53)	Isopropylbenzene	8.476	105	1147125	9.75	ppb		100
56)	Bromobenzene	8.762	156	215852	10.33	ppb		98
57)	1,1,2,2-Tetrachloroethane	8.762	83	102118	9.98	ppb		99
58)	1,2,3-Trichloropropane	8.799	75	82731	10.56	ppb	#	100
59)	n-Propylbenzene	8.872	91	1318888	10.52	ppb		99
60)	2-Chlorotoluene	8.951	126	252805	10.48	ppb		98
61)	4-Chlorotoluene	9.055	126	249463	10.43	ppb		100
62)	1,3,5-Trimethylbenzene	9.043	105	956130	10.27	ppb		99
63)	tert-Butylbenzene	9.353	119	765683	10.50	ppb		99
64)	1,2,4-Trimethylbenzene	9.402	105	885124	9.88	ppb		99
65)	sec-Butylbenzene	9.567	105	1090861	10.15	ppb		99
66)	1,3-Dichlorobenzene	9.670	146	380986	9.60	ppb		99
67)	p-Isopropyltoluene	9.713	119	856914	9.72	ppb		99
68)	1,4-Dichlorobenzene	9.756	146	396253	9.49	ppb		99
69)	1,2-Dichlorobenzene	10.116	146	278161	9.21	ppb		99
70)	n-Butylbenzene	10.109	91	770172	9.19	ppb		100
71)	1,2-Dibromo-3-chloropr...	10.884	157	12386	8.97	ppb		87
72)	1,2,4-Trichlorobenzene	11.701	180	77070	5.34	ppb		99
73)	Hexachlorobutadiene	11.883	225	69390	4.95	ppb		98
74)	Naphthalene	11.944	128	90183	5.61	ppb		98
75)	1,2,3-Trichlorobenzene	12.182	180	49016	5.15	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	497601	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	768052	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	607515	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	252975	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	229055	10.25	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.50%			
36) Toluene-d8	6.220	98	909694	10.07	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.70%			
54) 4-Bromofluorobenzene	8.622	95	277129	9.95	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.50%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	1121507	28.64	ppb	99
3) Chloromethane	1.343	50	1561206	26.25	ppb	100
4) Vinyl Chloride	1.428	62	1328160	27.20	ppb	100
5) Bromomethane	1.684	96	581881	25.64	ppb	99
6) Chloroethane	1.770	64	655545	25.52	ppb	99
7) Trichlorofluoromethane	1.977	101	1389716	26.02	ppb	99
8) 1,1-Dichloroethene	2.416	61	1474120	26.22	ppb	99
9) Acetone	2.471	43	87736	26.13	ppb	98
10) Iodomethane	2.538	142	1029759	26.31	ppb	98
11) Carbon Disulfide	2.593	76	2384649	26.86	ppb	99
12) Methylene Chloride	2.824	49	1201171	24.59	ppb	98
13) (trans) 1,2-Dichloroet...	3.056	61	1480100	26.56	ppb	99
14) Methyl t-Butyl Ether	3.068	73	917317	25.39	ppb	99
15) 1,1-Dichloroethane	3.410	63	1697554	26.18	ppb	99
16) Vinyl Acetate	3.458	43	677905	18.53	ppb	99
17) 2,2-Dichloropropane	3.897	77	1075056	25.36	ppb	100
18) (cis) 1,2-Dichloroethene	3.897	61	1593641	26.66	ppb	100
19) 2-Butanone	3.922	43	148430	25.04	ppb	98
20) Bromochloromethane	4.098	130	328851	26.05	ppb	99
21) Chloroform	4.165	83	1322341	26.07	ppb	99
22) 1,1,1-Trichloroethane	4.318	97	1293343	25.86	ppb #	68
24) Carbon Tetrachloride	4.458	117	1213430	26.09	ppb	100
25) 1,1-Dichloropropene	4.452	75	1117703	26.16	ppb	100
26) Benzene	4.629	78	2935857	26.34	ppb	99
27) 1,2-Dichloroethane	4.641	62	810173	26.11	ppb	99
29) Trichloroethene	5.171	130	884095	26.91	ppb	97
30) 1,2-Dichloropropane	5.360	63	807229	26.10	ppb	99
31) Dibromomethane	5.464	174	260025	25.99	ppb	98
32) Bromodichloromethane	5.598	83	801089	26.22	ppb	100
33) 2-Chloroethyl Vinyl Ether	5.860	63	43191	56.05	ppb #	86
34) (cis) 1,3-Dichloropropene	5.982	75	878404	27.19	ppb	100
35) Methyl Isobutyl Ketone	6.122	43	291919	26.08	ppb	98
37) Toluene	6.281	91	3203081	25.57	ppb	100
39) (trans) 1,3-Dichloropr...	6.470	75	580541	27.13	ppb	98
40) 1,1,2-Trichloroethane	6.634	97	324195	25.49	ppb	96
41) Tetrachloroethene	6.769	166	854911	25.57	ppb	100
42) 1,3-Dichloropropane	6.787	76	586797	26.20	ppb	100
43) 2-Hexanone	6.866	43	200018	26.80	ppb	100
44) Dibromochloromethane	6.988	129	444656	26.79	ppb	99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

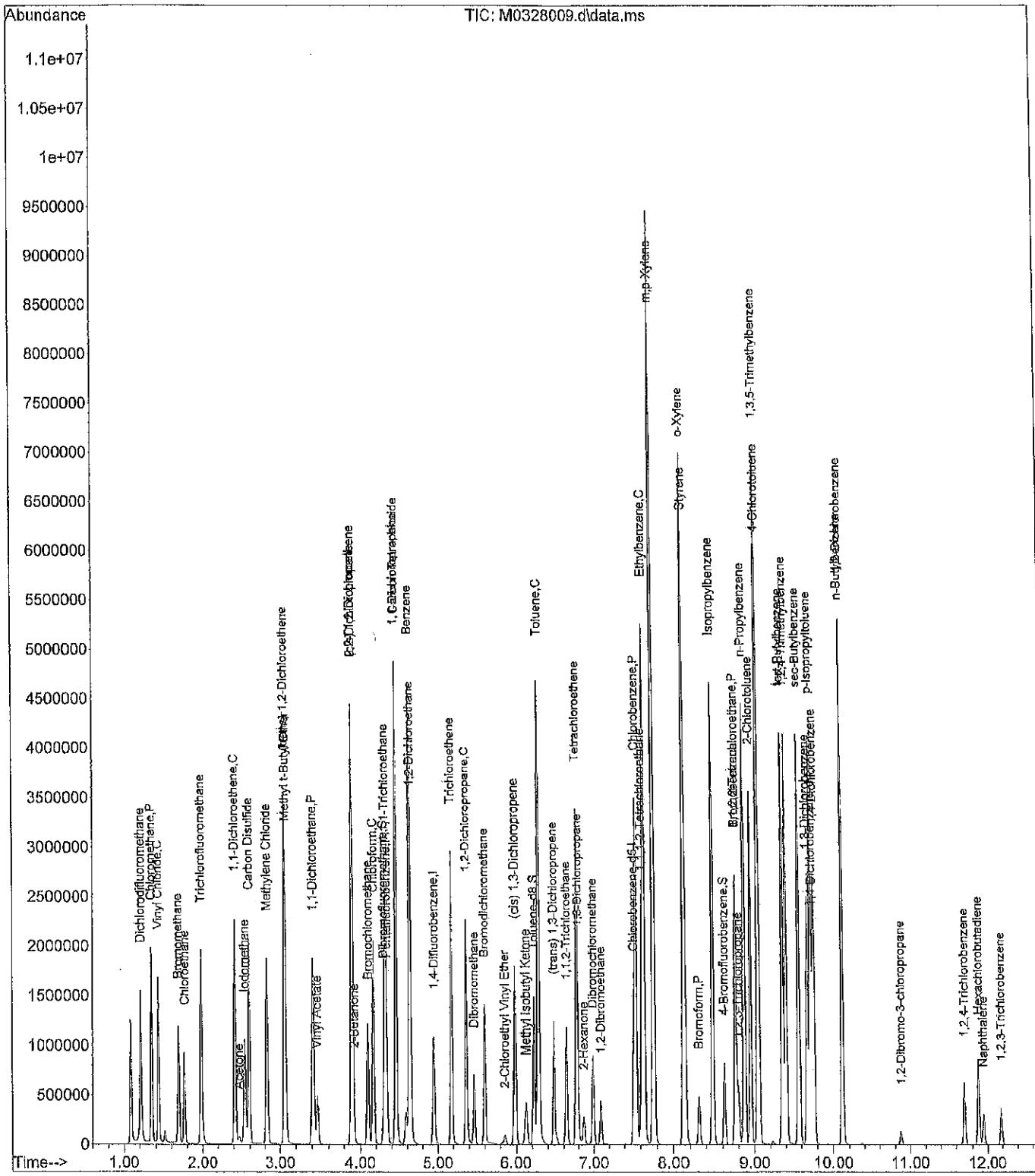
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	1,2-Dibromoethane	7.092	107	292386	26.66	ppb		99
46)	Chlorobenzene	7.543	112	1729622	25.68	ppb		100
47)	1,1,1,2-Tetrachloroethane	7.616	133	576009	26.08	ppb		99
48)	Ethylbenzene	7.646	91	3585151	26.38	ppb		99
49)	m,p-Xylene	7.756	91	5434085	53.13	ppb		99
50)	o-Xylene	8.128	91	2466541	26.02	ppb		99
51)	Styrene	8.140	104	1887824	27.11	ppb		100
52)	Bromoform	8.311	173	232242	26.97	ppb		99
53)	Isopropylbenzene	8.476	105	3134059	26.30	ppb		100
56)	Bromobenzene	8.762	156	592396	27.65	ppb		99
57)	1,1,2,2-Tetrachloroethane	8.762	83	278507	26.56	ppb		97
58)	1,2,3-Trichloropropane	8.799	75	221012	27.51	ppb	#	100
59)	n-Propylbenzene	8.872	91	3571653	27.78	ppb		100
60)	2-Chlorotoluene	8.951	126	685447	27.70	ppb		98
61)	4-Chlorotoluene	9.055	126	667612	27.22	ppb		100
62)	1,3,5-Trimethylbenzene	9.043	105	2605407	27.30	ppb		99
63)	tert-Butylbenzene	9.353	119	2039103	27.27	ppb		100
64)	1,2,4-Trimethylbenzene	9.402	105	2384690	25.96	ppb		100
65)	sec-Butylbenzene	9.567	105	2940858	26.70	ppb		99
66)	1,3-Dichlorobenzene	9.670	146	1018598	25.04	ppb		99
67)	p-Isopropyltoluene	9.713	119	2342593	25.92	ppb		100
68)	1,4-Dichlorobenzene	9.756	146	1061821	24.81	ppb		99
69)	1,2-Dichlorobenzene	10.116	146	755745	24.41	ppb		100
70)	n-Butylbenzene	10.109	91	2095716	24.39	ppb		99
71)	1,2-Dibromo-3-chloropr...	10.884	157	35703	25.21	ppb		95
72)	1,2,4-Trichlorobenzene	11.707	180	210257	14.22	ppb		98
73)	Hexachlorobutadiene	11.883	225	183636	12.77	ppb		99
74)	Naphthalene	11.944	128	250957	14.31	ppb		100
75)	1,2,3-Trichlorobenzene	12.182	180	124247	12.52	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	522687	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	794397	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	648063	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	271326	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	239856	10.22	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.20%				
36) Toluene-d8	6.220	98	954439	10.21	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 102.10%				
54) 4-Bromofluorobenzene	8.622	95	292946	9.86	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	2263976	55.05	ppb		99
3) Chloromethane	1.343	50	3189613	51.05	ppb		100
4) Vinyl Chloride	1.428	62	2726670	53.16	ppb		99
5) Bromomethane	1.690	96	1188547	49.85	ppb		99
6) Chloroethane	1.769	64	1341140	49.70	ppb		99
7) Trichlorofluoromethane	1.977	101	2822826	50.31	ppb		100
8) 1,1-Dichloroethene	2.416	61	3002296	50.83	ppb		98
9) Acetone	2.477	43	169002	48.45	ppb		98
10) Iodomethane	2.538	142	2055765	49.63	ppb		97
11) Carbon Disulfide	2.592	76	4931028	52.87	ppb		100
12) Methylene Chloride	2.824	49	2461328	47.97	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	3034587	51.85	ppb		99
14) Methyl t-Butyl Ether	3.068	73	1954424	51.50	ppb		99
15) 1,1-Dichloroethane	3.409	63	3499793	51.39	ppb		99
16) Vinyl Acetate	3.464	43	1988880	50.94	ppb		99
17) 2,2-Dichloropropane	3.897	77	2173704	48.82	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	3306469	52.65	ppb		100
19) 2-Butanone	3.921	43	294527	47.30	ppb		98
20) Bromochloromethane	4.098	130	687090	51.81	ppb		98
21) Chloroform	4.165	83	2720414	51.07	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	2654495	50.52	ppb	#	58
24) Carbon Tetrachloride	4.458	117	2489450	50.96	ppb		100
25) 1,1-Dichloropropene	4.458	75	2319305	51.68	ppb		99
26) Benzene	4.629	78	6103832	52.13	ppb		98
27) 1,2-Dichloroethane	4.641	62	1656157	50.81	ppb		99
29) Trichloroethene	5.171	130	1726990	50.82	ppb		99
30) 1,2-Dichloropropane	5.360	63	1670462	52.23	ppb		99
31) Dibromomethane	5.464	174	532261	51.43	ppb		98
32) Bromodichloromethane	5.598	83	1679673	53.15	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	102169	125.64	ppb	#	89
34) (cis) 1,3-Dichloropropene	5.982	75	1826617	54.67	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	644949	55.71	ppb		98
37) Toluene	6.281	91	6709086	51.79	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	1239067	54.28	ppb		98
40) 1,1,2-Trichloroethane	6.634	97	674955	49.75	ppb		97
41) Tetrachloroethene	6.768	166	1764560	49.48	ppb		99
42) 1,3-Dichloropropane	6.787	76	1220959	51.11	ppb		99
43) 2-Hexanone	6.866	43	420528	52.83	ppb		98
44) Dibromochloromethane	6.988	129	950233	53.68	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

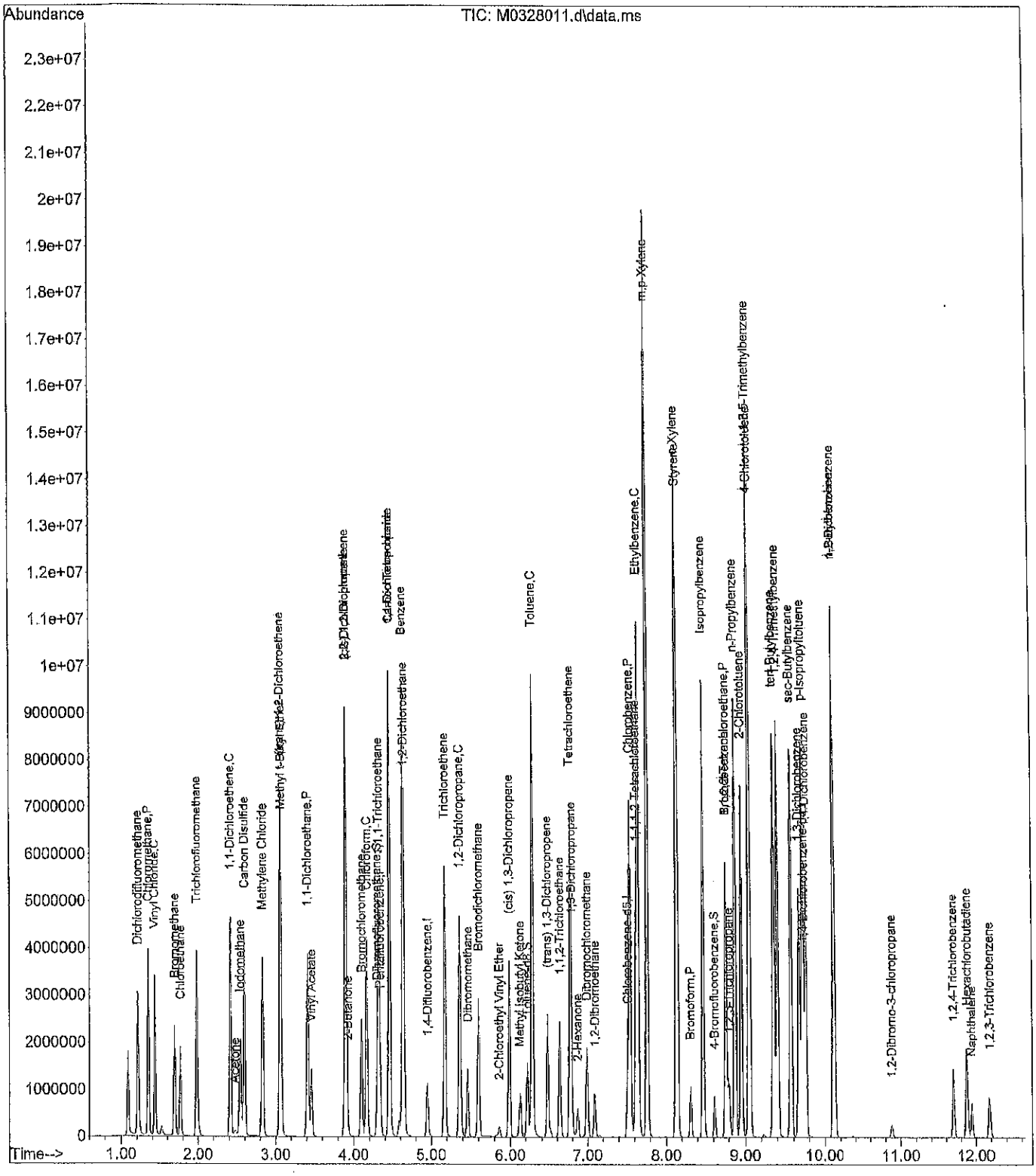
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	599789	51.27	ppb		100
46) Chlorobenzene	7.543	112	3639368	50.66	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.622	133	1226756	52.08	ppb		99
48) Ethylbenzene	7.646	91	7483755	51.62	ppb		99
49) m,p-Xylene	7.756	91	11469508	105.12	ppb		99
50) o-Xylene	8.128	91	5194099	51.37	ppb		99
51) Styrene	8.140	104	4005725	53.92	ppb		100
52) Bromoform	8.311	173	511778	55.72	ppb		97
53) Isopropylbenzene	8.475	105	6542524	51.46	ppb		100
56) Bromobenzene	8.762	156	1232656	53.64	ppb		100
57) 1,1,2,2-Tetrachloroethane	8.762	83	621739	55.28	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	462707	53.70	ppb	#	100
59) n-Propylbenzene	8.872	91	7452772	54.05	ppb		99
60) 2-Chlorotoluene	8.951	126	1400536	52.77	ppb		98
61) 4-Chlorotoluene	9.055	126	1411549	53.66	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	5458502	53.32	ppb		100
63) tert-Butylbenzene	9.353	119	4243887	52.91	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	5034056	51.09	ppb		100
65) sec-Butylbenzene	9.567	105	6127669	51.87	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	2161176	49.54	ppb		99
67) p-Isopropyltoluene	9.713	119	4907139	50.62	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	2245473	48.92	ppb		98
69) 1,2-Dichlorobenzene	10.115	146	1619215	48.77	ppb		100
70) n-Butylbenzene	10.115	91	4472832	48.54	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.883	157	75602	49.77	ppb		94
72) 1,2,4-Trichlorobenzene	11.700	180	482632	30.43	ppb		99
73) Hexachlorobutadiene	11.883	225	393787	25.53	ppb		98
74) Naphthalene	11.944	128	596197	31.03	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	286773	26.78	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	510461	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	773794	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	619866	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	260824	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	233640	10.05	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.50%			
36) Toluene-d8	6.220	98	922244	10.11	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 101.10%			
54) 4-Bromofluorobenzene	8.622	95	278743	10.13	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 101.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	329413	8.41	ppb	100
3) Chloromethane	1.343	50	597280	9.87	ppb	100
4) Vinyl Chloride	1.428	62	501584	9.84	ppb	100
5) Bromomethane	1.690	96	230195	9.50	ppb	98
6) Chloroethane	1.769	64	257346	9.62	ppb	99
7) Trichlorofluoromethane	1.977	101	559983	10.20	ppb	99
8) 1,1-Dichloroethene	2.416	61	639672	10.90	ppb	100
9) Acetone	2.483	43	36530	10.23	ppb	99
10) Iodomethane	2.538	142	373007	9.48	ppb	99
11) Carbon Disulfide	2.592	76	935588	10.03	ppb	100
12) Methylene Chloride	2.824	49	504778	10.00	ppb	99
13) (trans) 1,2-Dichloroet...	3.056	61	595161	10.07	ppb	99
14) Methyl t-Butyl Ether	3.068	73	395430	10.62	ppb	100
15) 1,1-Dichloroethane	3.409	63	704461	10.46	ppb	99
16) Vinyl Acetate	3.464	43	172935	6.08	ppb	100
17) 2,2-Dichloropropane	3.897	77	408962	9.51	ppb	100
18) (cis) 1,2-Dichloroethene	3.897	61	638476	10.27	ppb	100
19) 2-Butanone	3.921	43	58497	9.47	ppb	98
20) Bromochloromethane	4.098	130	139022	10.67	ppb	98
21) Chloroform	4.165	83	549665	10.33	ppb	99
22) 1,1,1-Trichloroethane	4.318	97	536813	10.46	ppb	95
24) Carbon Tetrachloride	4.458	117	499537	10.42	ppb	97
25) 1,1-Dichloropropene	4.452	75	448750	10.09	ppb	99
26) Benzene	4.629	78	1210361	10.35	ppb	100
27) 1,2-Dichloroethane	4.641	62	336423	10.39	ppb	99
29) Trichloroethene	5.171	130	378291	11.08	ppb	99
30) 1,2-Dichloropropane	5.360	63	326363	10.48	ppb	99
31) Dibromomethane	5.464	174	111837	11.18	ppb	99
32) Bromodichloromethane	5.598	83	338886	10.94	ppb	98
33) 2-Chloroethyl Vinyl Ether	5.860	63	15917	9.55	ppb	99
34) (cis) 1,3-Dichloropropene	5.982	75	343393	10.79	ppb	99
35) Methyl Isobutyl Ketone	6.122	43	110853	9.73	ppb	98
37) Toluene	6.281	91	1303383	10.35	ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	231090	10.59	ppb	100
40) 1,1,2-Trichloroethane	6.634	97	131800	10.05	ppb	99
41) Tetrachloroethene	6.769	166	351520	10.39	ppb	99
42) 1,3-Dichloropropane	6.787	76	240647	10.55	ppb	99
43) 2-Hexanone	6.866	43	73055	9.33	ppb	100
44) Dibromochloromethane	6.988	129	187880	11.08	ppb	98

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

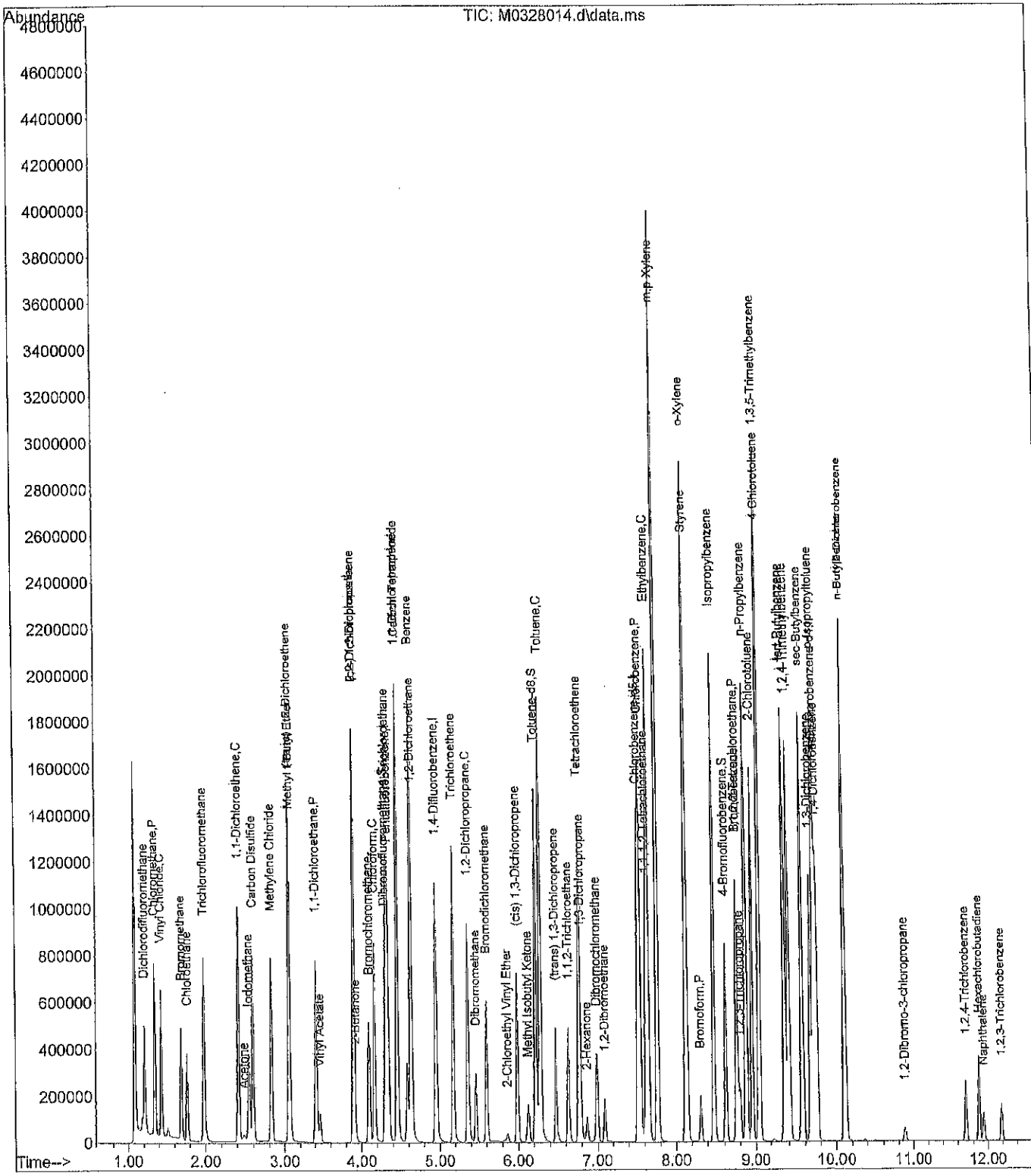
Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	121746	10.62	ppb		99
46) Chlorobenzene	7.543	112	777358	11.26	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	235590	10.59	ppb		99
48) Ethylbenzene	7.646	91	1429843	10.55	ppb		100
49) m,p-Xylene	7.756	91	2249857	22.19	ppb		99
50) o-Xylene	8.128	91	1087120	11.73	ppb		100
51) Styrene	8.140	104	755347	10.94	ppb		100
52) Bromoform	8.311	173	92427	10.74	ppb		98
53) Isopropylbenzene	8.475	105	1357068	11.74	ppb		99
56) Bromobenzene	8.762	156	244612	10.36	ppb		97
57) 1,1,2,2-Tetrachloroethane	8.762	83	109511	9.58	ppb		96
58) 1,2,3-Trichloropropane	8.799	75	94450	10.47	ppb	#	100
59) n-Propylbenzene	8.872	91	1568963	11.28	ppb		99
60) 2-Chlorotoluene	8.951	126	303671	11.33	ppb		100
61) 4-Chlorotoluene	9.055	126	300275	11.41	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	1039946	10.55	ppb		99
63) tert-Butylbenzene	9.353	119	902330	11.62	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	957567	10.48	ppb		99
65) sec-Butylbenzene	9.567	105	1290528	11.52	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	459444	11.27	ppb		99
67) p-Isopropyltoluene	9.713	119	1006766	11.42	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	433737	10.18	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	343625	11.62	ppb		98
70) n-Butylbenzene	10.109	91	840590	10.44	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	14660	11.24	ppb		97
72) 1,2,4-Trichlorobenzene	11.707	180	86555	10.60	ppb		98
73) Hexachlorobutadiene	11.883	225	75185	9.84	ppb		98
74) Naphthalene	11.944	128	98546	10.16	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	52321	9.87	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	10.000	10.000	0.0	120	0.00
2		Dichlorodifluoromethane	10.000	6.849	31.5#	86	0.00
3	P	Chloromethane	10.000	8.668	13.3	108	0.00
4	C	Vinyl Chloride	10.000	8.519	14.8#	103	0.00
5		Bromomethane	10.000	8.372	16.3	106	0.00
6		Chloroethane	10.000	8.238	17.6	102	0.00
7		Trichlorofluoromethane	10.000	8.549	14.5	103	0.00
8	C	1,1-Dichloroethene	10.000	9.246	7.5#	112	0.00
9		Acetone	10.000	8.227	17.7	98	0.00
10		Iodomethane	10.000	8.324	16.8	101	0.00
11		Carbon Disulfide	10.000	9.243	7.6	112	0.00
12		Methylene Chloride	10.000	9.032	9.7	114	0.00
13		(trans) 1,2-Dichloroethene	10.000	9.275	7.2	112	0.00
14		Methyl t-Butyl Ether	10.000	8.181	18.2	100	0.00
15	P	1,1-Dichloroethane	10.000	9.186	8.1	111	0.00
16		Vinyl Acetate	10.000	10.299	-3.0	133	0.00
17		2,2-Dichloropropane	10.000	9.093	9.1	109	0.00
18		(cis) 1,2-Dichloroethene	10.000	8.962	10.4	108	0.00
19		2-Butanone	10.000	8.249	17.5	103	0.00
20		Bromochloromethane	10.000	9.341	6.6	111	0.00
21	C	Chloroform	10.000	8.673	13.3#	106	0.00
22		1,1,1-Trichloroethane	10.000	8.737	12.6	105	0.00
23	S	Dibromofluoromethane	10.000	7.705	22.9#	92	0.00
24		Carbon Tetrachloride	10.000	8.988	10.1	110	0.00
25		1,1-Dichloropropene	10.000	8.987	10.1	110	0.00
26		Benzene	10.000	9.158	8.4	111	0.00
27		1,2-Dichloroethane	10.000	8.086	19.1	97	0.00
28	I	1,4-Difluorobenzene	10.000	10.000	0.0	111	0.00
29		Trichloroethene	10.000	10.117	-1.2	115	0.00
30	C	1,2-Dichloropropane	10.000	9.820	1.8#	111	0.00
31		Dibromomethane	10.000	10.293	-2.9	115	0.00
32		Bromodichloromethane	10.000	9.439	5.6	106	0.00
33		2-Chloroethyl Vinyl Ether	10.000	2.605	73.9#	32	0.00
34		(cis) 1,3-Dichloropropene	10.000	9.734	2.7	107	0.00
35		Methyl Isobutyl Ketone	10.000	8.488	15.1	100	0.00
36	S	Toluene-d8	10.000	9.613	3.9	107	0.00
37	C	Toluene	10.000	9.764	2.4#	113	0.00
38	I	Chlorobenzene-d5	10.000	10.000	0.0	106	0.00
39		(trans) 1,3-Dichloropropene	10.000	10.087	-0.9	104	0.00
40		1,1,2-Trichloroethane	10.000	9.618	3.8	108	0.00
41		Tetrachloroethene	10.000	11.159	-11.6	121	0.00
42		1,3-Dichloropropane	10.000	9.878	1.2	104	0.00
43		2-Hexanone	10.000	8.662	13.4	99	0.00
44		Dibromochloromethane	10.000	10.182	-1.8	108	0.00
45		1,2-Dibromoethane	10.000	9.997	0.0	107	0.00
46	P	Chlorobenzene	10.000	10.517	-5.2	115	0.00
47		1,1,1,2-Tetrachloroethane	10.000	10.719	-7.2	113	0.00
48	C	Ethylbenzene	10.000	10.595	-6.0#	112	0.00

Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49		m,p-Xylene	20.000	21.453	-7.3	112	0.00
50		o-Xylene	10.000	10.554	-5.5	111	0.00
51		Styrene	10.000	10.906	-9.1	112	0.00
52	P	Bromoform	10.000	10.642	-6.4	113	0.00
53		Isopropylbenzene	10.000	11.063	-10.6	115	0.00
54	S	4-Bromofluorobenzene	10.000	9.373	6.3	98	0.00
55	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	106	0.00
56		Bromobenzene	10.000	10.637	-6.4	116	0.00
57	P	1,1,2,2-Tetrachloroethane	10.000	9.351	6.5	105	0.00
58		1,2,3-Trichloropropane	10.000	9.110	8.9	99	0.00
59		n-Propylbenzene	10.000	10.787	-7.9	114	0.00
60		2-Chlorotoluene	10.000	11.018	-10.2	117	0.00
61		4-Chlorotoluene	10.000	11.023	-10.2	116	0.00
62		1,3,5-Trimethylbenzene	10.000	11.202	-12.0	115	0.00
63		tert-Butylbenzene	10.000	11.476	-14.8	116	0.00
64		1,2,4-Trimethylbenzene	10.000	11.221	-12.2	116	0.00
65		sec-Butylbenzene	10.000	11.460	-14.6	117	0.00
66		1,3-Dichlorobenzene	10.000	10.934	-9.3	117	0.00
67		p-Isopropyltoluene	10.000	11.592	-15.9	119	0.00
68		1,4-Dichlorobenzene	10.000	10.759	-7.6	116	0.00
69		1,2-Dichlorobenzene	10.000	10.945	-9.5	116	0.00
70		n-Butylbenzene	10.000	11.489	-14.9	120	0.00
71		1,2-Dibromo-3-chloropropane	10.000	11.587	-15.9	122	0.00
72		1,2,4-Trichlorobenzene	10.000	11.595	-16.0	123	0.00
73		Hexachlorobutadiene	10.000	13.092	-30.9#	144	0.00
74		Naphthalene	10.000	10.126	-1.3	109	0.00
75		1,2,3-Trichlorobenzene	10.000	10.002	-0.0	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	586461	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	844392	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	637433	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	260379	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	205778	7.71	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 77.10%			
36) Toluene-d8	6.220	98	956546	9.61	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.10%			
54) 4-Bromofluorobenzene	8.616	95	265221	9.37	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	308233	6.85	ppb	100
3) Chloromethane	1.343	50	602772	8.67	ppb	99
4) Vinyl Chloride	1.428	62	499070	8.52	ppb	99
5) Bromomethane	1.690	96	233049	8.37	ppb	99
6) Chloroethane	1.769	64	253087	8.24	ppb	100
7) Trichlorofluoromethane	1.977	101	539345	8.55	ppb	100
8) 1,1-Dichloroethene	2.416	61	623367	9.25	ppb	100
9) Acetone	2.477	43	34220	8.23	ppb	96
10) Iodomethane	2.538	142	374042	8.32	ppb	94
11) Carbon Disulfide	2.592	76	990845	9.24	ppb	100
12) Methylene Chloride	2.824	49	523929	9.03	ppb	100
13) (trans) 1,2-Dichloroet...	3.056	61	629597	9.27	ppb	99
14) Methyl t-Butyl Ether	3.068	73	349787	8.18	ppb	98
15) 1,1-Dichloroethane	3.409	63	710747	9.19	ppb	99
16) Vinyl Acetate	3.464	43	336829	10.30	ppb	99
17) 2,2-Dichloropropane	3.897	77	449198	9.09	ppb	100
18) (cis) 1,2-Dichloroethene	3.897	61	640306	8.96	ppb	100
19) 2-Butanone	3.921	43	58559	8.25	ppb	97
20) Bromochloromethane	4.098	130	139839	9.34	ppb	97
21) Chloroform	4.165	83	530285	8.67	ppb	100
22) 1,1,1-Trichloroethane	4.318	97	515080	8.74	ppb	98
24) Carbon Tetrachloride	4.458	117	495034	8.99	ppb	96
25) 1,1-Dichloropropene	4.452	75	459233	8.99	ppb	100
26) Benzene	4.629	78	1230387	9.16	ppb	99
27) 1,2-Dichloroethane	4.641	62	300860	8.09	ppb	100
29) Trichloroethene	5.171	130	376789	10.12	ppb	99
30) 1,2-Dichloropropane	5.360	63	333753	9.82	ppb	99
31) Dibromomethane	5.464	174	112342	10.29	ppb	100
32) Bromodichloromethane	5.598	83	319028	9.44	ppb	99
33) 2-Chloroethyl Vinyl Ether	5.860	63	4736	2.61	ppb	97
34) (cis) 1,3-Dichloropropene	5.982	75	338111	9.73	ppb	100
35) Methyl Isobutyl Ketone	6.122	43	105513	8.49	ppb	98
37) Toluene	6.281	91	1341880	9.76	ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	226360	10.09	ppb	99
40) 1,1,2-Trichloroethane	6.634	97	129774	9.62	ppb	99
41) Tetrachloroethene	6.768	166	388073	11.16	ppb	99
42) 1,3-Dichloropropane	6.787	76	231621	9.88	ppb	100
43) 2-Hexanone	6.866	43	69728	8.66	ppb	99
44) Dibromochloromethane	6.988	129	177471	10.18	ppb	99

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

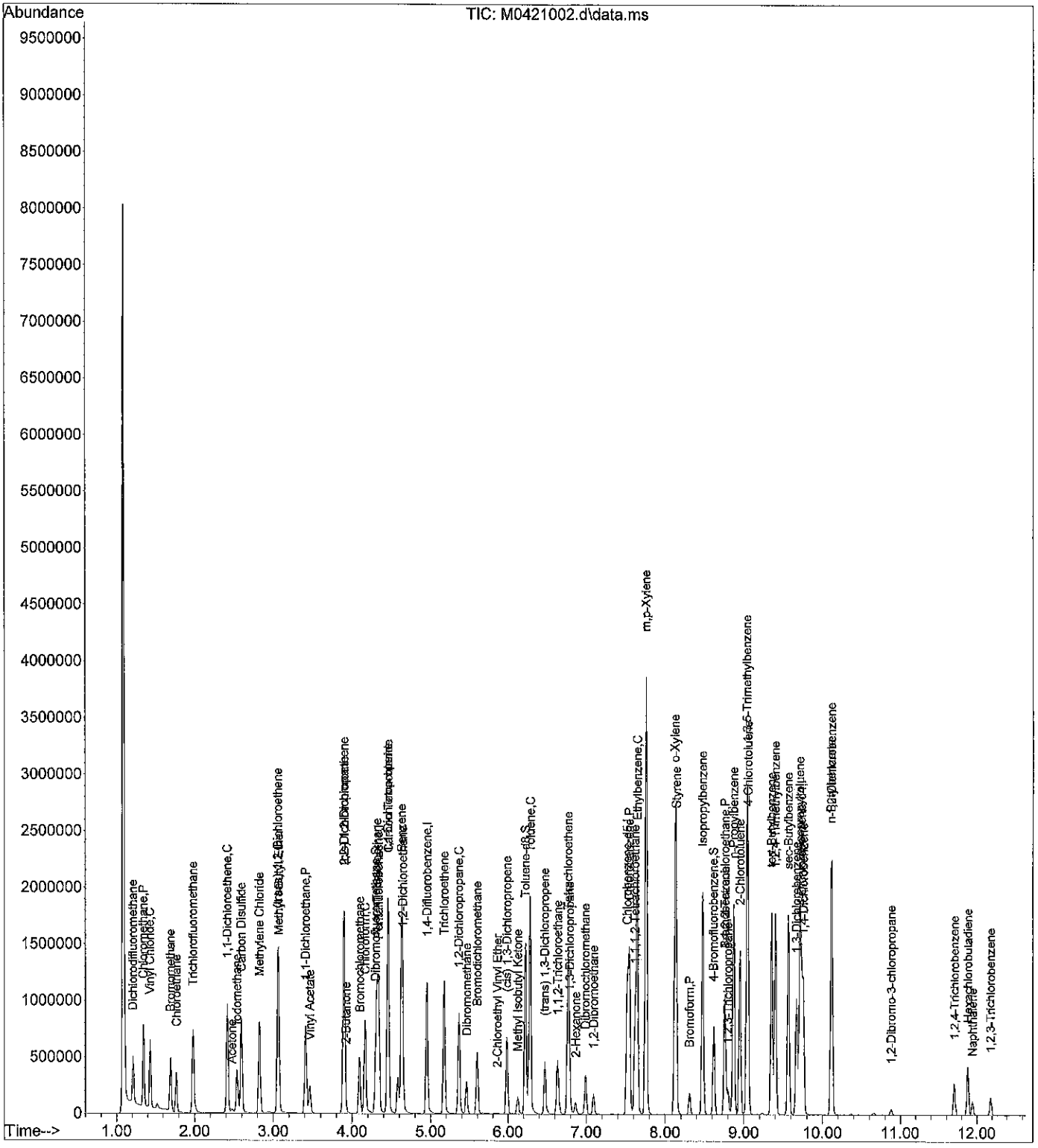
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	117902	10.00	ppb		98
46) Chlorobenzene	7.543	112	746417	10.52	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	245139	10.72	ppb		100
48) Ethylbenzene	7.646	91	1476598	10.59	ppb		99
49) m,p-Xylene	7.756	91	2237037	21.45	ppb		98
50) o-Xylene	8.128	91	1005535	10.55	ppb		99
51) Styrene	8.140	104	774608	10.91	ppb		100
52) Bromoform	8.311	173	94182	10.64	ppb		99
53) Isopropylbenzene	8.475	105	1315484	11.06	ppb		99
56) Bromobenzene	8.762	156	250598	10.64	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	106715	9.35	ppb		99
58) 1,2,3-Trichloropropane	8.799	75	82051	9.11	ppb	#	100
59) n-Propylbenzene	8.872	91	1498373	10.79	ppb		98
60) 2-Chlorotoluene	8.951	126	294900	11.02	ppb		99
61) 4-Chlorotoluene	9.055	126	289578	11.02	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	1101845	11.20	ppb		97
63) tert-Butylbenzene	9.353	119	889428	11.48	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	1023087	11.22	ppb		97
65) sec-Butylbenzene	9.567	105	1281111	11.46	ppb		98
66) 1,3-Dichlorobenzene	9.670	146	444978	10.93	ppb		99
67) p-Isopropyltoluene	9.713	119	1020550	11.59	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	457794	10.76	ppb		99
69) 1,2-Dichlorobenzene	10.115	146	323116	10.94	ppb		98
70) n-Butylbenzene	10.109	91	923261	11.49	ppb		98
71) 1,2-Dibromo-3-chloropr...	10.884	157	15090	11.59	ppb		93
72) 1,2,4-Trichlorobenzene	11.707	180	94502	11.59	ppb		99
73) Hexachlorobutadiene	11.883	225	99875	13.09	ppb		98
74) Naphthalene	11.944	128	98089	10.13	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	52955	10.00	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

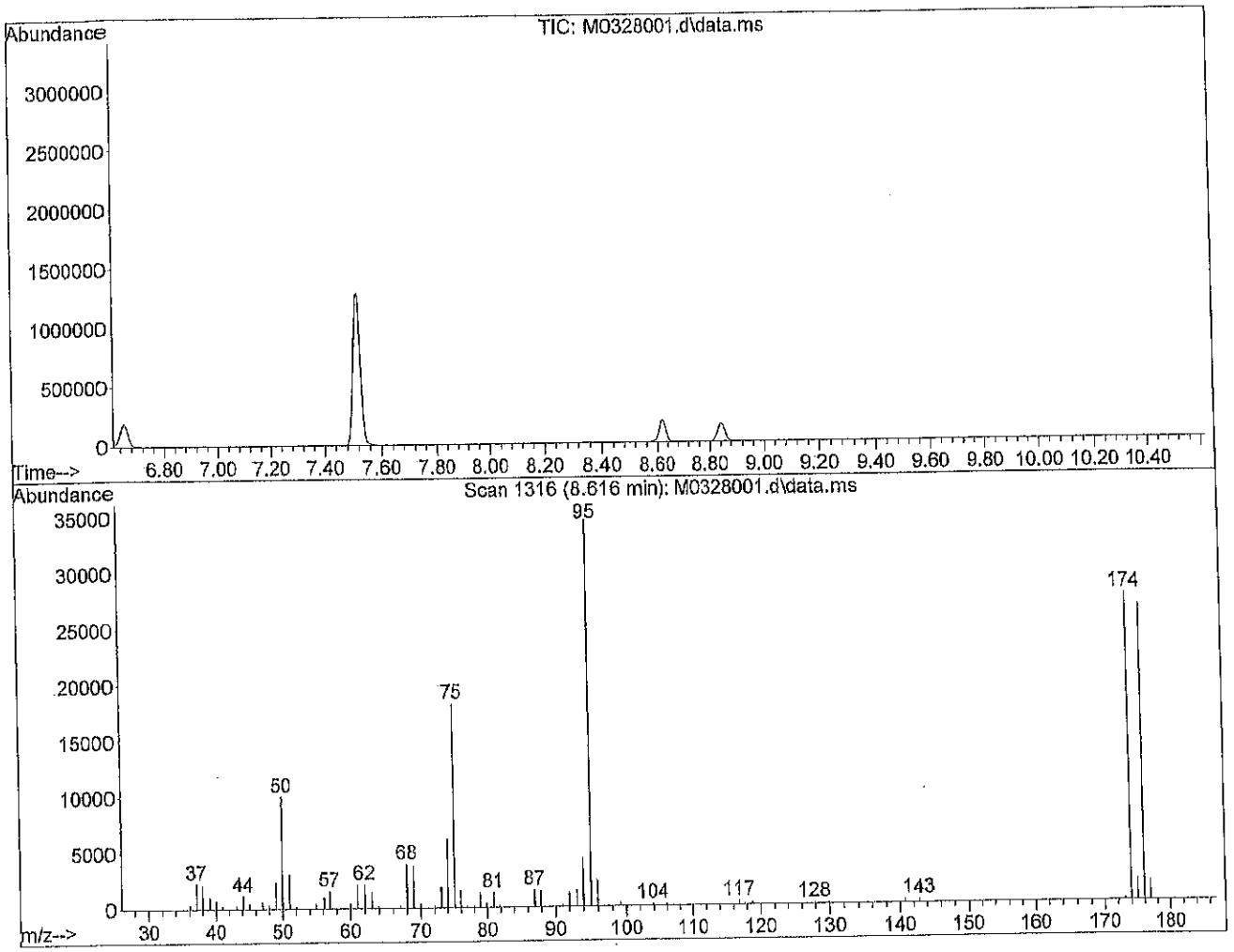
Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\M140328\Snapshot\
Data File : M0328001.d
Acq On : 28 Mar 2014 6:54 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140324W.M
Title :
Last Update : Mon Mar 24 11:06:36 2014



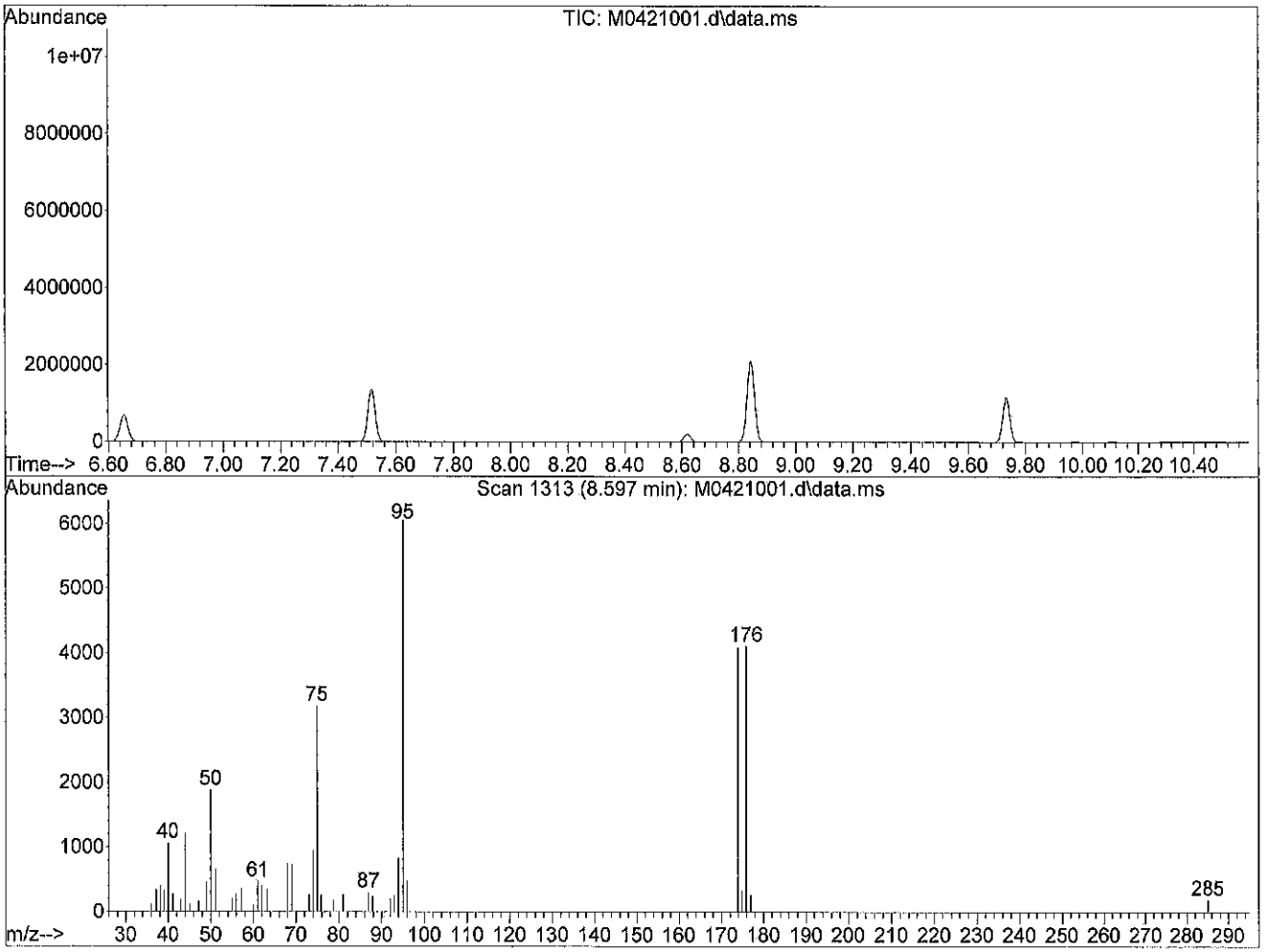
Spectrum Information: Scan 1316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	29.0	10030	PASS
75	95	30	80	52.9	18280	PASS
95	95	100	100	100.0	34536	PASS
96	95	5	9	6.6	2289	PASS
173	174	0.00	2	0.7	191	PASS
174	95	50	100	79.5	27456	PASS
175	174	5	9	7.0	1915	PASS
176	174	95	101	96.5	26504	PASS
177	176	5	9	6.6	1751	PASS

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421001.d
Acq On : 21 Apr 2014 7:37 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014



Spectrum Information: Scan 1313

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.1	1885	PASS
75	95	30	80	52.6	3186	PASS
95	95	100	100	100.0	6061	PASS
96	95	5	9	8.0	482	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	67.4	4083	PASS
175	174	5	9	8.0	328	PASS
176	174	95	101	100.6	4107	PASS
177	176	5	9	6.4	264	PASS

GC/MS QA-QC Check Report

Tune File : X:\VOLATILE\MORRIS\DATA\M140421\M0421001.d
Tune Time : 21 Apr 2014 7:37 am

Daily Calibration File : X:\VOLATILE\MORRIS\DATA\M140421\M0421002.d

586461 844392 637433

260379

File	Sample	Surrogate Recovery %			Internal Standard Responses		
M0421003.d							
	SB0421W1	80	95	91	583615	851796	638455
				246954			
M0421004.d							
	04-137-01c	82	95	92	577702	854037	650908
				257039			
M0421005.d							
	04-137-01d	82	95	93	582849	844413	648272
				251232			
M0421006.d							
	MB0421W1	83	96	92	575038	840158	651278
				255461			
M0421007.d							
	04-137-01b	84	96	93	572939	840580	643845
				248008			
M0421012.d							
	04-123-01b	84	96	93	569171	820434	632171
				251830			
M0421013.d							
	04-123-02b	84	97	92	568099	815789	645019
				253774			
M0421014.d							
	04-123-03b	84	96	91	574385	823790	645616
				251540			
M0421015.d							
	04-123-04b	85	98	94	561544	826999	646081
				252921			
M0421016.d							
	04-123-05b	85	96	94	564472	834356	650657
				249572			

(fails) - fails 12hr time check * - fails criteria

Created: Tue Apr 22 07:13:58 2014 Morris

Sequence Name: C:\msdchem\1\sequence\M140328.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140328\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0328001 M140324W 50ng bfb mass tune
2)	Sample 2	M0328002 M140324W blank
3)	Sample 3	M0328003 M140324W 0.20 PPB ICAL
4)	Sample 4	M0328004 M140324W 1.0 PPB ICAL
5)	Sample 5	M0328005 M140324W 2.0 PPB ICAL
6)	Sample 6	M0328006 M140324W 5.0 PPB ICAL
7)	Sample 7	M0328007 M140324W 10 PPB ICAL
8)	Sample 8	M0328008 M140324W BLANK
9)	Sample 9	M0328009 M140324W 25 PPB ICAL
10)	Sample 10	M0328010 M140324W BLANK
11)	Sample 11	M0328011 M140324W 50 PPB ICAL
12)	Sample 12	M0328012 M140324W BLANK
13)	Sample 13	M0328013 M140324W BLANK
14)	Sample 14	M0328014 M140324W ICV0328W1
15)	Sample 15	M0328015 M140324W BLANK
16)	Sample 16	M0328016 M140324W BLANK
17)	Sample 17	M0328017 M140324W BLANK
18)	Sample 18	M0328018 M140324W 03-202-01a 1:100 SCREEN
19)	Sample 19	M0328019 M140324W 03-202-02a 1:100 SCREEN
20)	Sample 20	M0328020 M140324W 03-202-03a 1:100 SCREEN
21)	Sample 21	M0328021 M140324W 03-202-04a 1:100 SCREEN
22)	Sample 22	M0328022 M140324W 03-206-04c 1:100 SCREEN
23)	Sample 23	M0328023 M140324W 03-206-08c 1:100 SCREEN
24)	Sample 24	M0328024 M140324W 03-206-12c 1:100 SCREEN
25)	Sample 25	M0328025 M140324W 03-206-16c 1:100 SCREEN
26)	Sample 26	M0328026 M140324W 03-207-01a 1:100 SCREEN
27)	Sample 27	M0328027 M140324W 03-207-02a 1:100 SCREEN
28)	Sample 28	M0328028 M140324W 03-207-03a 1:100 SCREEN
29)	Sample 29	M0328029 M140324W 03-207-04a 1:100 SCREEN
30)	Sample 30	M0328030 M140324W 03-207-05a 1:100 SCREEN
31)	Sample 31	M0328031 M140324W 03-207-06a 1:100 SCREEN
32)	Sample 32	M0328032 M140324W 03-207-07a 1:100 SCREEN
33)	Sample 33	M0328033 M140324W 03-207-08a 1:100 SCREEN
34)	Sample 34	M0328034 M140324W 03-207-09a 1:100 SCREEN

Sequence Name: C:\msdchem\1\sequence\M140421.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140421\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0421001 M140328W 50ng bfb mass tune
2)	Sample 2	M0421002 M140328W CCV0421W1
3)	Sample 3	M0421003 M140328W SB0421W1
4)	Sample 4	M0421004 M140328W 04-137-01c MS
5)	Sample 5	M0421005 M140328W 04-137-01d MSD
6)	Sample 6	M0421006 M140328W MB0421W1
7)	Sample 7	M0421007 M140328W 04-137-01b
8)	Sample 8	M0421008 M140328W 04-137-04b
9)	Sample 9	M0421009 M140328W 04-137-05b
10)	Sample 10	M0421010 M140328W 04-137-02b
11)	Sample 11	M0421011 M140328W 04-137-03b
12)	Sample 12	M0421012 M140328W 04-123-01b
13)	Sample 13	M0421013 M140328W 04-123-02b
14)	Sample 14	M0421014 M140328W 04-123-03b
15)	Sample 15	M0421015 M140328W 04-123-04b
16)	Sample 16	M0421016 M140328W 04-123-05b
17)	Sample 17	M0421017 M140328W 04-138-01b
18)	Sample 18	M0421018 M140328W 04-138-02b
19)	Sample 19	M0421019 M140328W 04-138-03b
20)	Sample 20	M0421020 M140328W 04-138-04b
21)	Sample 21	M0421021 M140328W 04-138-05b
22)	Sample 22	M0421022 M140328W 04-156-01b
23)	Sample 23	M0421023 M140328W 04-156-02b
24)	Sample 24	M0421024 M140328W 04-156-03b
25)	Sample 25	M0421025 M140328W 04-156-04b
26)	Sample 26	M0421026 M140328W 04-156-05b
27)	Sample 27	M0421027 M140328W 04-151-01a 1:100 SCREEN
28)	Sample 28	M0421028 M140328W 04-151-02a 1:100 SCREEN
29)	Sample 29	M0421029 M140328W 04-151-03a 1:100 SCREEN
30)	Sample 30	M0421030 M140328W 04-151-04a 1:100 SCREEN
31)	Sample 31	M0421031 M140328W 04-151-05a 1:100 SCREEN
32)	Sample 32	M0421032 M140328W 04-151-06a 1:100 SCREEN
33)	Sample 33	M0421033 M140328W 04-151-07a 1:100 SCREEN
34)	Sample 34	M0421034 M140328W 04-151-08a 1:100 SCREEN
35)	Sample 35	M0421035 M140328W 04-151-09a 1:100 SCREEN
36)	Sample 36	M0421036 M140328W 04-151-10a 1:100 SCREEN
37)	Sample 37	M0421037 M140328W 04-151-11a 1:100 SCREEN
38)	Sample 38	M0421038 M140328W 04-151-12a 1:100 SCREEN
39)	Sample 39	M0421039 M140328W 04-151-13a 1:100 SCREEN
40)	Sample 40	M0421040 M140328W 04-151-14a 1:100 SCREEN
41)	Sample 41	M0421041 M140328W 04-151-15a 1:100 SCREEN
42)	Sample 42	M0421042 M140328W 04-151-16a 1:100 SCREEN
43)	Sample 43	M0421043 M140328W 04-151-17a 1:100 SCREEN

Sequence Name: C:\msdchem\1\sequence\M140421.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)		Sample	44	M0421044	M140328W	04-151-18a 1:100 SCREEN
45)		Sample	45	M0421045	M140328W	04-151-19a 1:100 SCREEN
46)		Sample	46	M0421046	M140328W	04-151-20a 1:100 SCREEN
47)		Sample	47	M0421047	M140328W	04-151-21a 1:100 SCREEN
48)		Sample	48	M0421048	M140328W	04-151-22a 1:100 SCREEN
49)		Sample	49	M0421049	M140328W	04-151-23a 1:100 SCREEN
50)		Sample	50	M0421050	M140328W	04-151-24a 1:100 SCREEN
51)		Sample	51	M0421051	M140328W	04-151-25a 1:100 SCREEN
52)		Sample	52	M0421052	M140328W	04-151-26a 1:100 SCREEN
53)		Sample	53	M0421053	M140328W	04-151-27a 1:100 SCREEN
54)		Sample	54	M0421054	M140328W	04-151-28a 1:100 SCREEN
55)		Sample	55	M0421055	M140328W	04-151-29a 1:100 SCREEN

OnSite Environmental Inc.

WATER EXTRACTION LOG

Instrument Run #: M140421
Date: 4-21-14

Int. Std./Surr. Stock#: V3-125-12/V3-125-13
Matrix Spike Stock#: V3-125-5

# of Sample	Date	Sample I.D.	Volume	pH of Sample	Analyst	Miscellaneous
	4-21-14	MB042101	25mL	7	SD	
		SB042101		7		
1		04-123-01b		2		
2		-02b				
3		-03b				
4		-04b				
5		-05b				
6		04-137-01b				
		-01c MS				
		-01d MSD				
7		-02b				
8		-03b				
9		-04b				
10		-05b				
11		04-138-01b				
12		-02b				
13		-03b				
14		-04b				
15		-05b				
16		04-156-01b				
17		-02b				
18		-03b				
19		-04b				
20		-05b				
		SD 4-22-14				

TITLE **PROJECT**

Continued from page 114

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
	VOC ADD'S	V3-115-1							10-1-13	SD
5			M-8260-ADD-10X Method 8260 Additions 2.0 mg/mL in MeOH Lot: 213091338 Exp: Jan 25,2014			1 mL				
	250 ppm ICAL	V3-115-2	V3-114-4	2000 ppm	25 mL	1 mL	250 ppm	MeOH	10-1-13	SD
			V3-114-16							
			V3-115-1							
10	50 ppm ICAL	V3-115-3	V3-115-2	250 ppm	200 µL	1 mL	50 ppm	MeOH	10-1-13	SD
	10 ppm ICAL	V3-115-4	V3-115-3	50 ppm	200 µL	1 mL	10 ppm	MeOH	10-1-13	SD
	5 ppm ICAL	V3-115-5	V3-115-3	50 ppm	100 µL	1 mL	5 ppm	MeOH	10-1-13	SD
	1 ppm ICAL	V3-115-6	V3-115-3	50 ppm	20 µL	1 mL	1 ppm	MeOH	10-1-13	SD
	50 ppm SS (bore)	V3-115-7	V3-113-16	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
15	50 ppm ICV	V3-115-8	V3-101-7	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
			V3-101-8							
			V3-101-9							
	50 ppm CCV	V3-115-9	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
			V3-114-16							
20			V3-115-1							
	2000 ppm SS	V3-115-10	M-8240/60-SS-10X Surrogate Standard VOA Mix 2.0 mg/mL in MeOH Lot: 212051380 Exp: Jun 1,2022			1 mL			10-7-13	SD
25	250 ppm SS	V3-115-11	V3-113-16	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-7-13	SD
			V3-115-10							
	250 ppm SS	V3-115-12	V3-114-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-8-13	SD
	WDL 50 ppm SS	V3-115-13	V3-115-10	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	
	50 ppm ICS	V3-115-14	V3-114-14	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	
30	.05 ppm ICAL	V3-115-15	V3-115-6	1 ppm	.050 mL	1 mL	.050 ppm	MeOH	10-9-13	
	50 ppm CCV	V3-115-16	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-10-13	SD
			V3-114-16							
			V3-115-1							
	250 ppm MS	V3-115-17	CLP-003-R-10X Purgeable Organic Matrix Spiking Soln. 2.5 mg/mL in MeOH Lot: 212011385 Exp: Feb 6,2022			1 mL			10-10-13	SD
35										

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FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger
8 comps. HIGHLY FLAMMABLE

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
FOR LABORATORY USE ONLY
STORAGE Ambient
4 comps. HIGHLY FLAMMABLE

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FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger
5 comps. HIGHLY FLAMMABLE

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TITLE PROJECT

Continued from page 120

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
2000 ppm IS	V3-121-1							2-3-14	SD
250 ppm IS	V3-121-2	V3-120-8 + V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-3-14	SD
50 ppm MS	V3-121-3	V3-119-9	2500 ppm	20 mL	1 mL	50 ppm	MeOH	2-3-14	SD
2000 ppm SS	V3-121-4							2-4-14	SD
Albert 250 ppm SS	V3-121-13 + V3-121-4		2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-4-14	SD
Albert 250 ppm SS	V3-121-5	V3-120-13 + V3-121-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-4-14	SD
VOC Liquids	V3-121-6							2-5-14	SD
VOC ADD IS	V3-121-7							2-5-14	SD
VOC GASES	V3-121-8							2-5-14	SD
250 ppm ICAL	V3-121-9	V3-121-6 + V3-121-7 + V3-121-8	2000 ppm	125 mL	1 mL	250 ppm	MeOH	2-5-14	SD
50 ppm ICAL	V3-121-10	V3-121-9	250 ppm	200 mL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ICAL	V3-121-11	V3-121-10	50 ppm	200 mL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ICAL	V3-121-12	V3-121-10	50 ppm	100 mL	1 mL	5 ppm	MeOH	2-5-14	SD

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M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 Exp: Nov 19,2022
1 mL 4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 212051380 Exp: Jun 1,2022
1 mL 4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502A-R3-10X
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 Exp: Aug 30,2015
1 mL 55 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 213121006 Exp: Apr 3,2014
1 mL 8 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424 Exp: May 2,2016
1 mL 6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

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SIGNATURE DATE

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TITLE

PROJECT

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ANALYTE	LAB ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Initials
1 ppm ICAL	V3-122-1	V3-121-10	5 ppm	20 mL	1 mL	1 ppm	MeOH	2-5-14	SD
5 ppm ICAL	V3-122-2	V3-121-1	1 ppm	5 mL	0.5 mL	0.5 ppm	MeOH	2-5-14	SD
ICV VOC LIQUIDS	V3-122-3								
ICV VOC ADDs	V3-122-4								
ICV VOC GASES	V3-122-5								
50 ppm ICV	V3-122-6	V3-122-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-5-14	SD
		V3-122-4	1	1	1	1	1	1	1
		V3-122-5	1	1	1	1	1	1	1
100 ppm ACRYL/DCB	V3-122-7	V3-117-11	100 ppm	500 µL	1 mL	100 ppm	MeOH	2-5-14	SD
		V3-117-12	100 ppm	500 µL					
50 ppm ACRYL/DCB	V3-122-8	V3-122-7	100 ppm	500 µL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ACRYL/DCB	V3-122-9	V3-122-8	50 ppm	200 µL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ACRYL/DCB	V3-122-10	V3-122-8	50 ppm	100 µL	1 mL	5 ppm	MeOH	2-5-14	SD
50 ppm CCV	V3-122-11	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-7-14	SD
		V3-121-7	2000 ppm	25 mL	1	1	1	1	1
		V3-121-8	2000 ppm	25 mL	1	1	1	1	1
250 ppm IS	V3-122-12	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-10-14	SD
250 ppm SS	V3-122-13	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-18-14	SD
2000 ppm IS	V3-122-14							2-24-14	SD
250 ppm IS	V3-122-15	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-24-14	SD
		V3-122-14	1	1	1	1	1	1	1

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M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 213091216 55 comps.
Exp: Sep 19,2016 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214011413 8 comps.
Exp: Jun 3,2014 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-502B-10X 1 mL
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213071142 6 comps.
Exp: Jul 17,2016 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

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M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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PROPRIETARY INFORMATION

Continued from page 22

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
	50 ppm SS (tune)	V3-123-1	V3-121-4	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-26-14	SD
	50 ppm CCV	V3-123-2	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-27-14	SD
			V3-121-7							
			V3-121-8							
waldo	50 ppm IS	V3-123-3	V3-122-14	2000 ppm	100 mL	4 mL	50 ppm	MeOH	2-27-14	EEN
waldo	50 ppm SS	V3-123-4	V3-121-4	2000 ppm	100 mL	4 mL	50 ppm	MeOH	2-27-14	EEN
	~~2000 ppm SS~~	V3-123-5							2-28-14	SD
									spent 3-2-14	
Albert	250 ppm SS	V3-123-6	V3-121-4							
			V3-123-5	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-28-14	SD
	50 ppm I.S.	V3-123-7	V3-122-14	2000 ppm	625 µL	25 mL	50 ppm	MeOH	3-6-14	SD
Morris	2000 ppm IS	V3-123-8							3-10-14	SD
									spent 3-13-14	SD
Albert	250 ppm IS	V3-123-9	V3-122-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
			V3-123-8							
Albert	250 ppm SS	V3-123-10	V3-123-5	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
	50 ppm CCV	V3-123-11	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-10-14	SD
			V3-121-7							
			V3-121-8							
	50 ppm CCV	V3-123-12	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-121-8							
	VOC GASES	V3-123-13							3-13-14	SD
	50 ppm CCV	V3-123-14	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-123-13							

Continued to page

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M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028
Exp: Nov 6,2023
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger!

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287
Exp: Nov 19,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger!

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424
Exp: May 2,2016
1 mL
6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger!

SIGNATURE DATE

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BOOK PAGE

TITLE

PROJECT

Continued from page 123	Lab ID	Stock ID	Stock conc.	Stock Vol	Final Vol	Final conc.	Solvent	Date	Initials
Analyte									
250 ppm IS/SS	V3-124-1	V3-123-8	2000 ppm	250 µL	2 mL	250 ppm	MeOH	3-14-14	EEM
		V3-123-5		250 µL					
~~50 ppm MS~~	~~V3-124-2~~	~~V3-115-7~~	~~2500 ppm~~	~~80 µL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~ discarded 04-15-14
50 ppm ICV	V3-124-3	V3123-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-19-14	SD
		V3123-4							
		V3123-5							
VOC Liquids	V3-124-4							3-19-14	SD
VOC ADD's	V3124-5							3-19-14	SD
250 ppm ICAL	V3-124-6	V3-123-13	2000 ppm	125 mL	1 mL	250 ppm	MeOH	3-19-14	SD
		V3-124-4							
		V3-124-5							
50 ppm ICAL	V3-124-7	V3-124-6	250 ppm	200	1 mL	50 ppm	MeOH	3-19-14	SD
10 ppm ICAL	V3-124-8	V3-124-7	50 ppm	200	1 mL	10 ppm	MeOH	3-19-14	SD
5 ppm ICAL	V3-124-9	V3-124-7	50 ppm	100	1 mL	5 ppm	MeOH	3-19-14	SD
1 ppm ICAL	V3-124-10	V3-124-7	50 ppm	20	1 mL	1 ppm	MeOH	3-19-14	SD
~~CCV 50 ppm~~	~~V3-124-11~~	~~V3-123-13~~	~~2000 ppm~~	~~25 mL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~ discarded 04-15-14
		V3-124-4							
		V3124-5							
2000 ppm SS	V3-124-12							3-21-14	SD
~~250 ppm IS~~	~~V3-124-13~~	~~V3-123-8~~	~~2000 ppm~~	~~500 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~ discarded 3/31/14
~~250 ppm SS~~	~~V3-124-14~~	~~V3-123-5~~	~~2000 ppm~~	~~500 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~ discarded 3/31/14
		V3-124-12							
2000 ppm IS	V3-124-15							3-31-14	SD

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PROPRIETARY INFORMATION

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M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

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M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214021286 8 comps.
Exp: Jun 28,2014 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Storage: Freeze (<-10° C)
2 Danger

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M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6,2023 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

TITLE **PROJECT**

Continued from page 124 3.31.14

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
Albert	~~250 ppm IS~~	~~V3-125-1~~	~~V3-123-8~~ + V3-124-15	2000 ppm	~~500 µL~~	~~1 mL~~	~~250 ppm~~	MeOH	~~3-31-14~~	~~SD~~
Albert	~~250 ppm SS~~	~~V3-125-2~~	~~V3-124-12~~	~~2000 ppm~~	~~500 µL~~	~~1 mL~~	~~250 ppm~~	~~MeOH~~	~~3-31-14~~	~~SD~~
Albert	~~250 ppm IS~~	~~V3-125-3~~	~~V3-124-15~~	~~2000 ppm~~	~~250 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-9-14~~	~~SD~~
	50 ppm CCV	V3-125-4	V3-123-13	2000 ppm	~~2000 ppm~~ 25 mL	~~1 mL~~ 2.5 mL	~~50 ppm~~ 1 mL	MeOH	4-9-14	SD
			V3-124-4				50 ppm			
			V3-124-5							
10	50 ppm M.S.	V3-125-5	V3-115-17	2500 ppm	20 µL	1 mL	50 ppm	MeOH	4-9-14	SD
Albert	~~250 ppm SS~~	~~V3-125-6~~	~~V3-124-12~~	~~2000 ppm~~	~~250 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-16-14~~	~~SD~~
Albert	~~250 ppm IS~~	~~V3-125-7~~	~~V3-124-15~~	~~2000 ppm~~	~~250 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-16-14~~	~~SD~~
	2000 ppm IS	V3-125-8							4-21-14	SD
15										
	2000 ppm SS	V3-125-9							4-21-14	SD
20										
Albert	250 ppm IS	V3-125-10	V3-124-15	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-21-14	SD
Albert	250 ppm SS	V3-125-11	V3-125-9	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-21-14	SD
Morris	50 ppm IS	V3-125-12	V3-125-8	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
Morris	50 ppm SS	V3-125-13	V3-125-9	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
25										
30										
35										

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M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
4 comps.
Lot: 212111287
Exp: Nov 19,2022
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
Storage: Ambient
2 Daniger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
4 comps.
Lot: 213111028
Exp: Nov 6,2023
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

Continued to page

SIGNATURE DATE

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OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

April 23, 2014

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0180-121-09
Laboratory Reference No. 1404-137

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on April 17, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-137
Project: 0180-121-09

Case Narrative

Samples were collected on April 16, 2014 and received by the laboratory on April 17, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-137
Project: 0180-121-09

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-111-140416	04-137-01	Water	4-16-14	4-17-14	
MW-109-140416	04-137-02	Water	4-16-14	4-17-14	
MW-96-16-140416	04-137-03	Water	4-16-14	4-17-14	
RIN-1-140416	04-137-04	Water	4-16-14	4-17-14	
TB-1-140416	04-137-05	Water	4-16-14	4-17-14	

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-137
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-111-140416**					
Laboratory ID:	04-137-01					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	8.4	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*84*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-137
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-109-140416**					
Laboratory ID:	04-137-02					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	15	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*83*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-137
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-96-16-140416**					
Laboratory ID:	04-137-03					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*84*	*62-122*				
Toluene-d8	*95*	*70-120*				
4-Bromofluorobenzene	*92*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-137
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RIN-1-140416**					
Laboratory ID:	04-137-04					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*83*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*91*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-137
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TB-1-140416**					
Laboratory ID:	04-137-05					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*83*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*92*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-137
Project: 0180-121-09

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0421W1					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*83*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*92*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-137
Project: 0180-121-09

VOLATILES by EPA 8260C
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	04-137-01										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	**8.66**	**8.50**	10.0	10.0	ND	87	85	57-133	2	15	
Benzene	**8.90**	**8.73**	10.0	10.0	ND	89	87	78-117	2	15	
Trichloroethene	**17.7**	**18.0**	10.0	10.0	8.40	93	96	77-120	2	15	
Toluene	**9.07**	**9.25**	10.0	10.0	ND	91	93	80-115	2	15	
Chlorobenzene	**10.3**	**10.3**	10.0	10.0	ND	103	103	80-122	0	15	
Surrogate:											
Dibromofluoromethane						*82*	*82*	*62-122*			
Toluene-d8						*95*	*95*	*70-120*			
4-Bromofluorobenzene						*92*	*93*	*71-120*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

12

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers
Project Number: 0180-121-09
Project Name: Palermo
Project Manager: Nick Rohrbach
Sampled by: L. Linde / B. Brayfield

Turnaround Request (in working days)

(Check One)

- ☐ Same Day ☐ 1 Day
- ☐ 2 Days ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 04-137

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C Priority List	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
1	MW-111-140416	4/16/14	1015	W	9					X											
2	MW-109-140416	↓	1145	↓	3					X											
3	MW-96-16-140416		1350		3					X											
4	RIN-1-140416		1410		3					X											
5	TB-1-140416				2					X											

	Signature	Company	Date	Time
Relinquished	Lara Linde	GEI	4/17/14	
Received	Van	Spdy	4/17	835
Relinquished			"	1245
Received		OSE	4/17/14	1245
Relinquished				
Received				

Comments/Special Instructions

MW-111-140416 for MS/MSD

Reviewed/Date

Reviewed/Date

☐ Chromatograms with final report

Data Package: Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 0180-121-09

OnSite Project Number: 04-137

Initiated by: MV

Date Initiated: 4/17/14

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 0		
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A			
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	Yes	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	Yes	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and air bubbles?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

Complete Data Package

- Volatiles by EPA 8260C

Volatiles by EPA 8260C Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421007.d
Acq On : 21 Apr 2014 10:13 am
Operator :
Sample : 04-137-01b
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 21 10:27:01 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

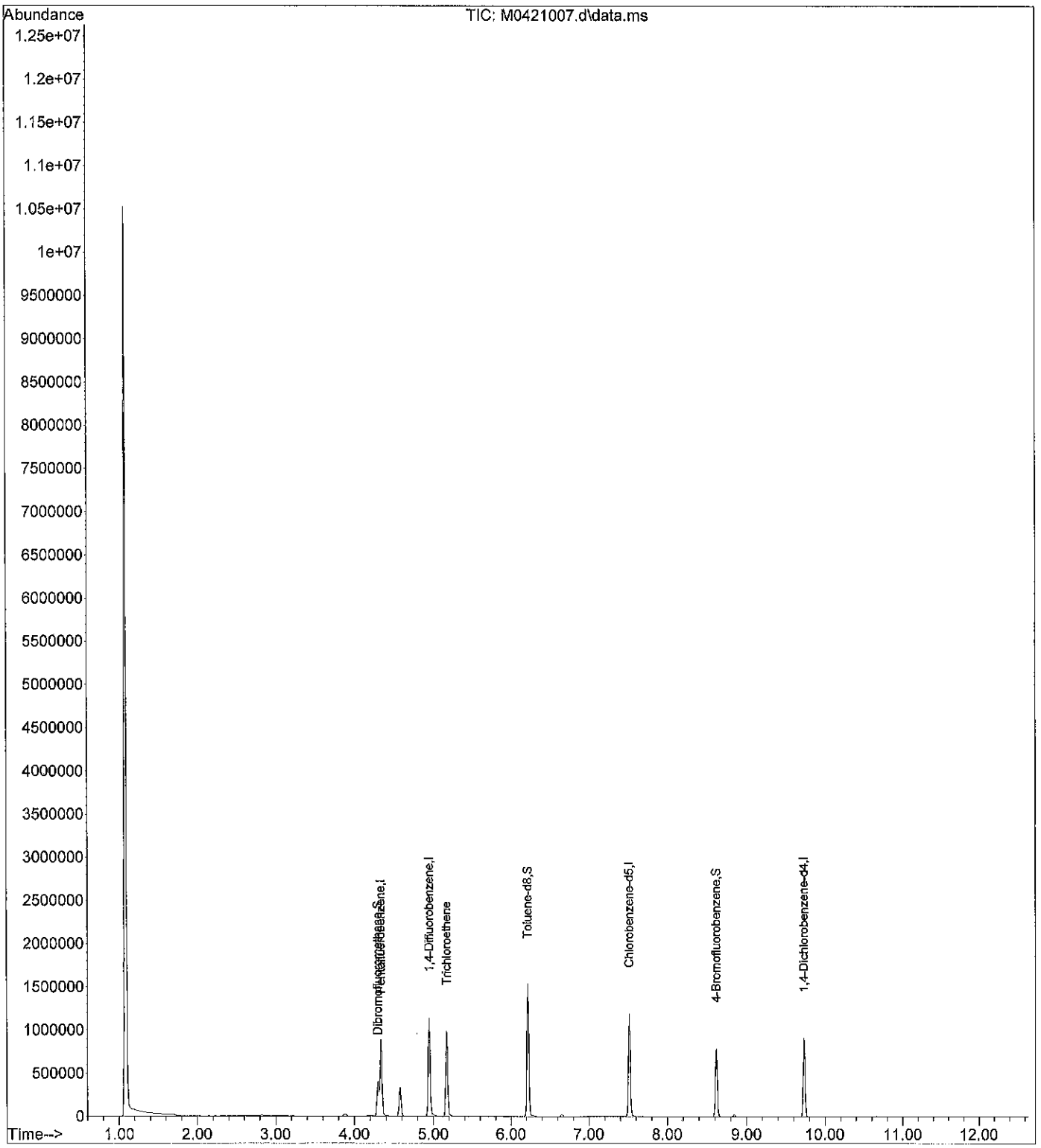
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	572939	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	840580	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	643845	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	248008	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	219418	8.41	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.10%			
36) Toluene-d8	6.220	98	950927	9.60	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.00%			
54) 4-Bromofluorobenzene	8.622	95	265459	9.29	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.90%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	311424	8.40	ppb	100

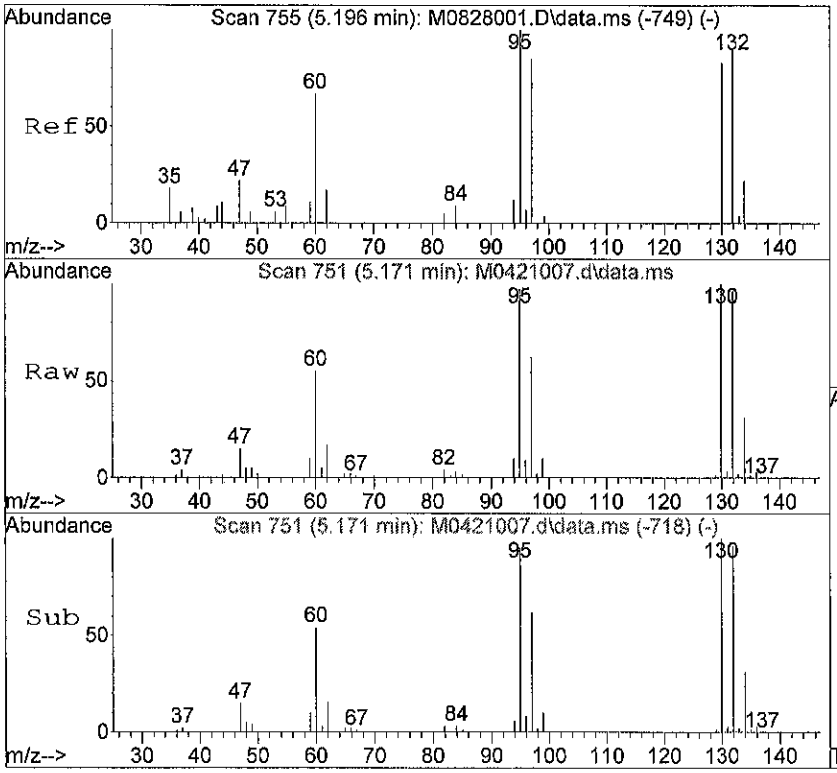
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421007.d
Acq On : 21 Apr 2014 10:13 am
Operator :
Sample : 04-137-01b
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 21 10:27:01 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

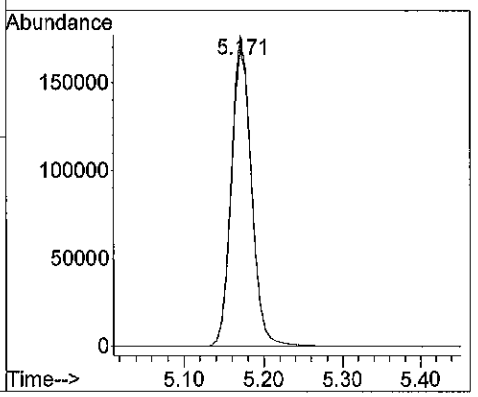




#29
Trichloroethene
Concen: 8.40 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0421007.d
Acq: 21 Apr 2014 10:13 am

Tgt Ion:130 Resp: 311424

Ion	Ratio	Lower	Upper
130	100		
132	96.1	77.0	115.6



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421010.d
Acq On : 21 Apr 2014 11:33 am
Operator :
Sample : 04-137-02b
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 21 11:47:52 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

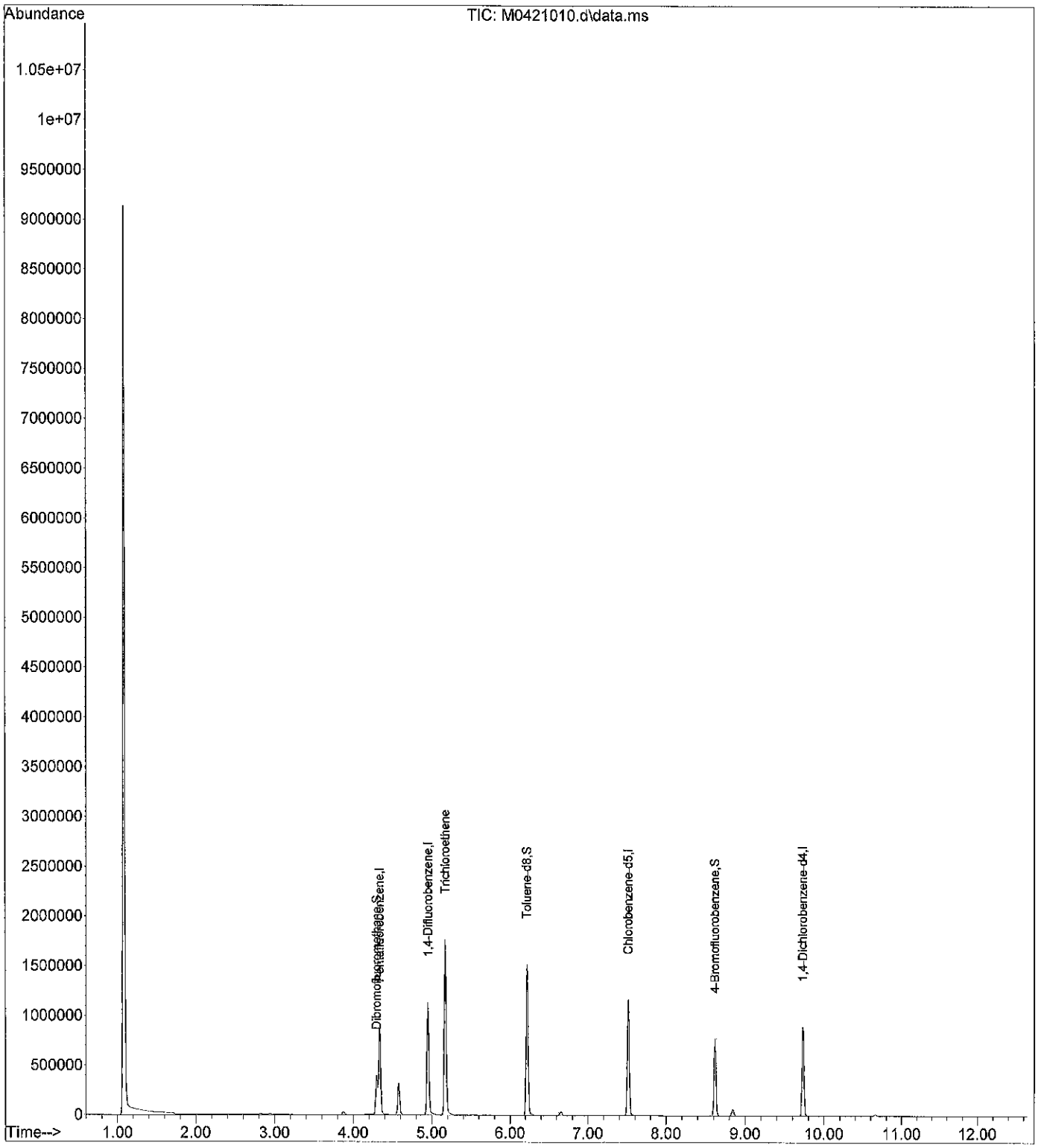
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	573142	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	832280	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	636052	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	249414	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	217811	8.35	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 83.50%			
36) Toluene-d8	6.220	98	945792	9.64	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.40%			
54) 4-Bromofluorobenzene	8.622	95	264891	9.38	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.80%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	559489	15.24	ppb	100

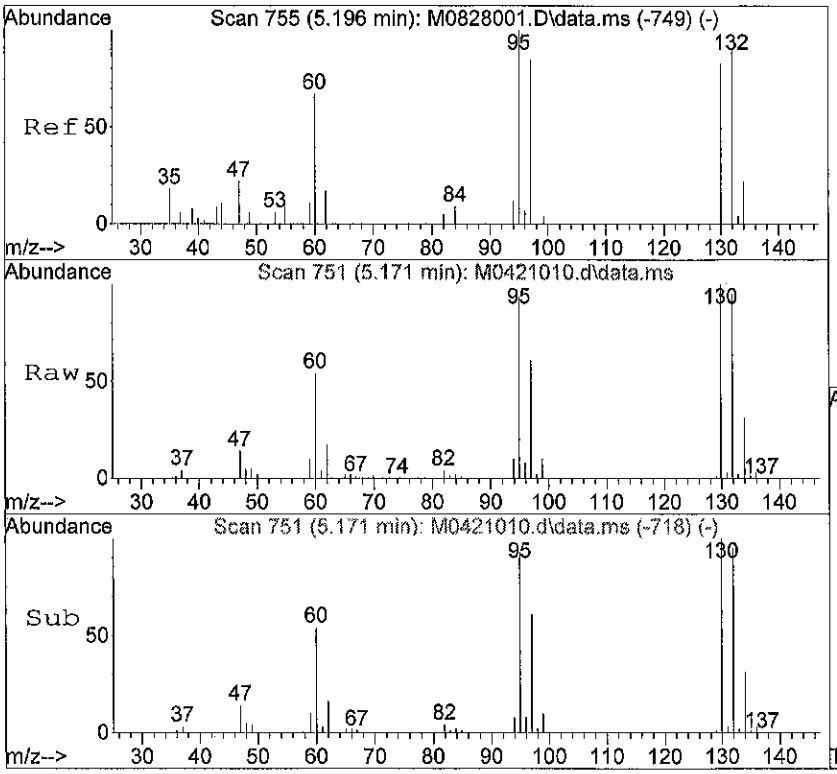
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421010.d
Acq On : 21 Apr 2014 11:33 am
Operator :
Sample : 04-137-02b
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 21 11:47:52 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

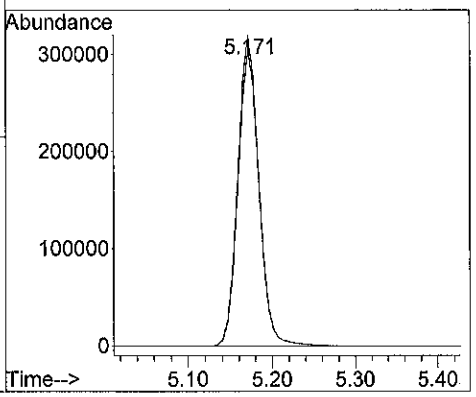




#29
Trichloroethene
Concen: 15.24 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0421010.d
Acq: 21 Apr 2014 11:33 am

Tgt Ion:130 Resp: 559489

Ion	Ratio	Lower	Upper
130	100		
132	95.9	77.0	115.6



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421011.d
Acq On : 21 Apr 2014 11:56 am
Operator :
Sample : 04-137-03b
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 21 12:22:50 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

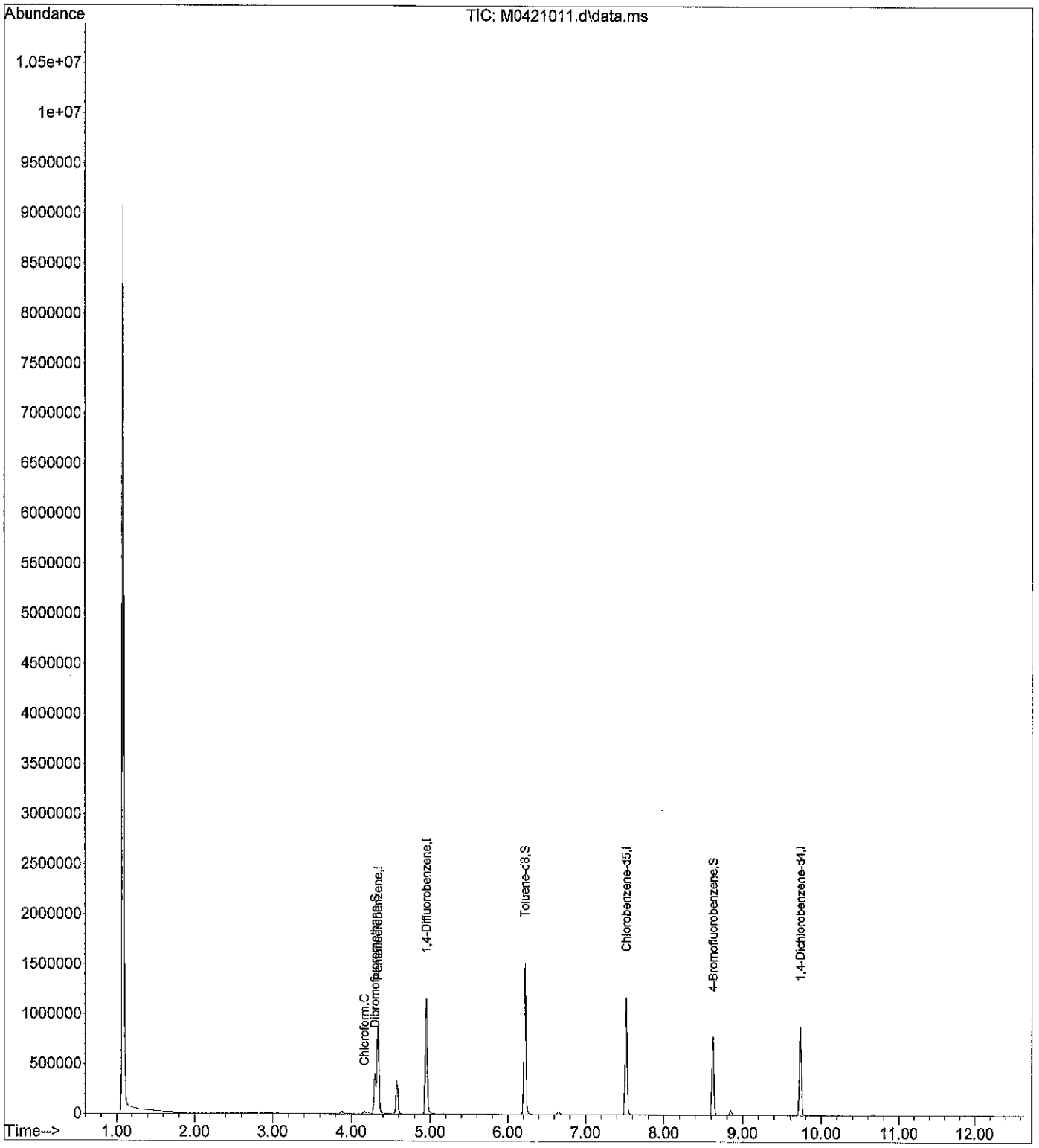
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	571660	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	832648	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	640765	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	251068	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	218171	8.38	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 83.80%			
36) Toluene-d8	6.220	98	930065	9.48	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 94.80%			
54) 4-Bromofluorobenzene	8.622	95	262011	9.21	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.10%			
Target Compounds						Qvalue
21) Chloroform	4.165	83	12148	0.20	ppb	100

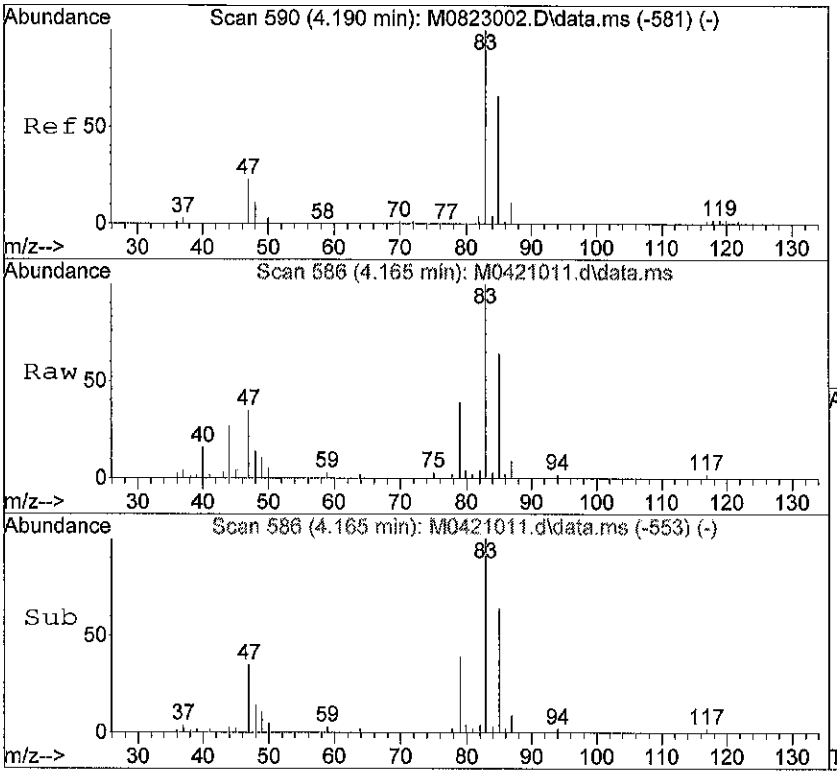
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421011.d
Acq On : 21 Apr 2014 11:56 am
Operator :
Sample : 04-137-03b
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 21 12:22:50 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

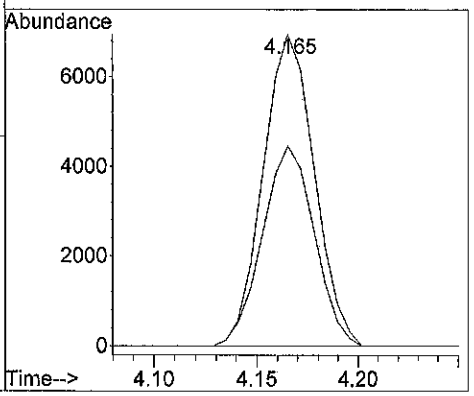




#21
Chloroform
Concen: 0.20 ppb
RT: 4.165 min Scan# 586
Delta R.T. 0.000 min
Lab File: M0421011.d
Acq: 21 Apr 2014 11:56 am

Tgt Ion: 83 Resp: 12148

Ion	Ratio	Lower	Upper
83	100		
85	64.9	51.8	77.6



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421008.d
Acq On : 21 Apr 2014 10:46 am
Operator :
Sample : 04-137-04b
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 21 10:59:01 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

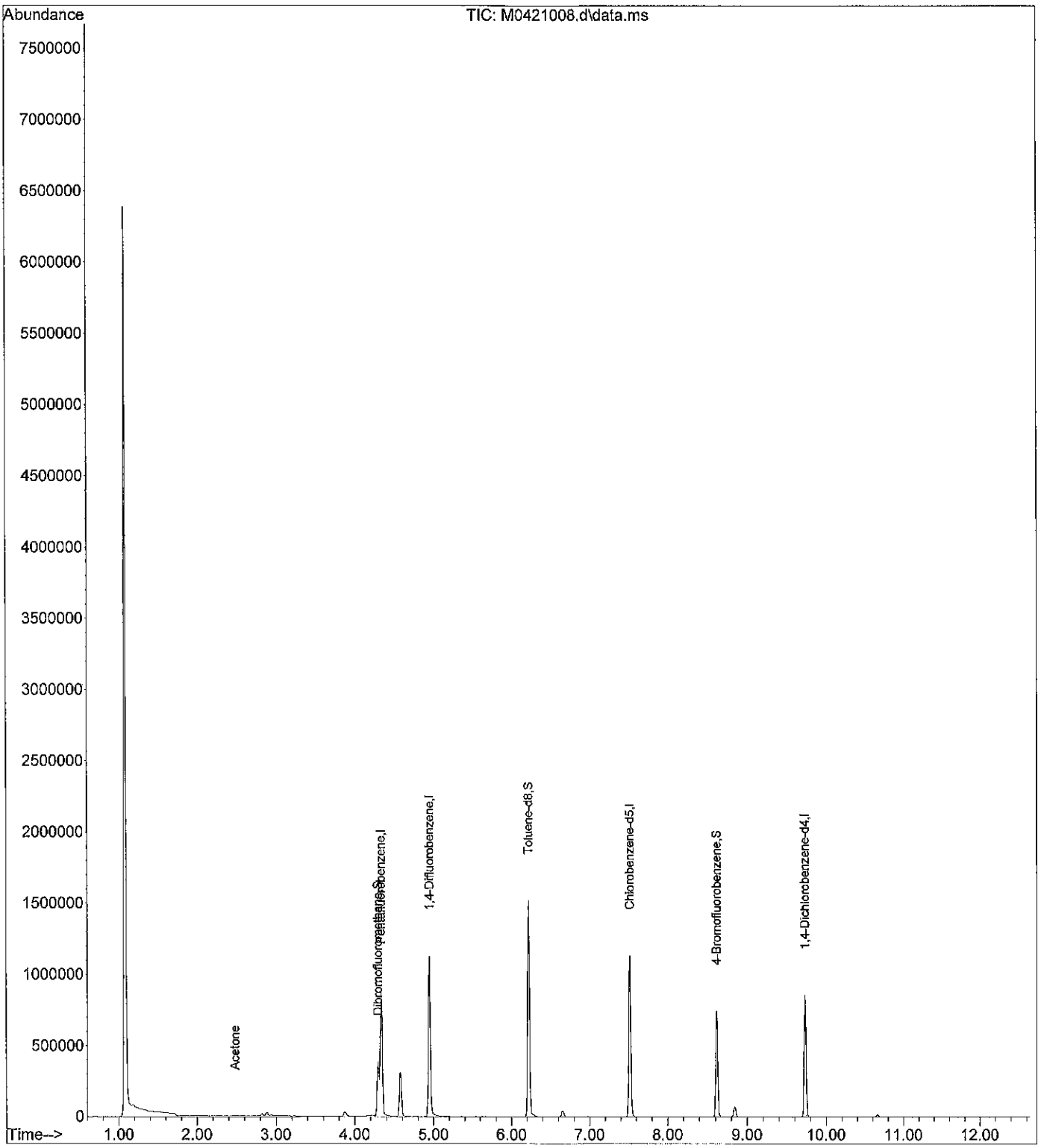
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	574177	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	831399	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	623001	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	240920	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	217043	8.30	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 83.00%			
36) Toluene-d8	6.220	98	937991	9.57	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.70%			
54) 4-Bromofluorobenzene	8.622	95	252726	9.14	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 91.40%			
Target Compounds						Qvalue
9) Acetone	2.483	43	3940	0.43	ppb	90

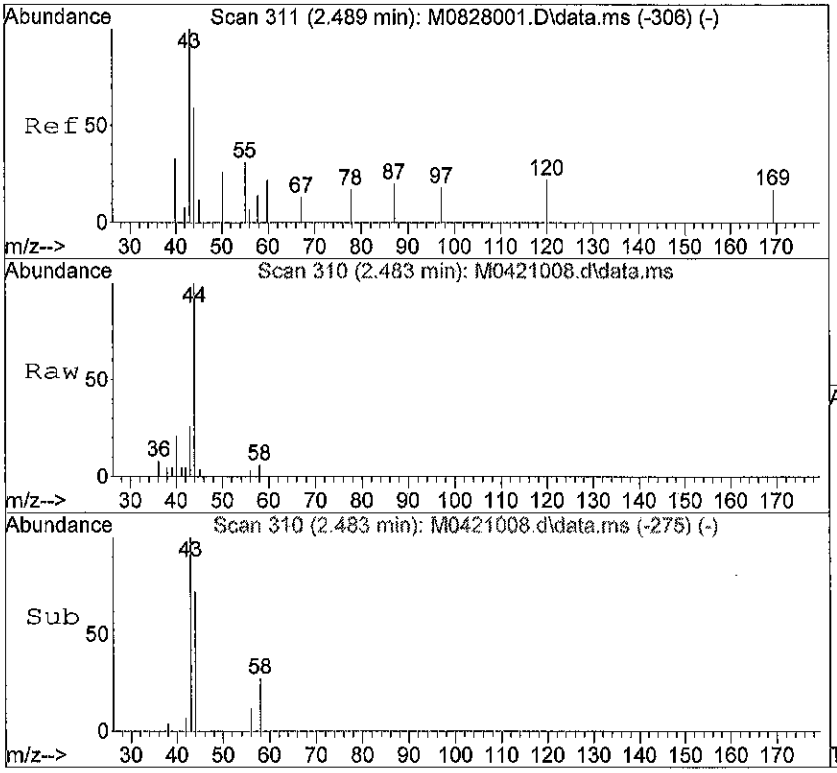
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421008.d
Acq On : 21 Apr 2014 10:46 am
Operator :
Sample : 04-137-04b
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 21 10:59:01 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

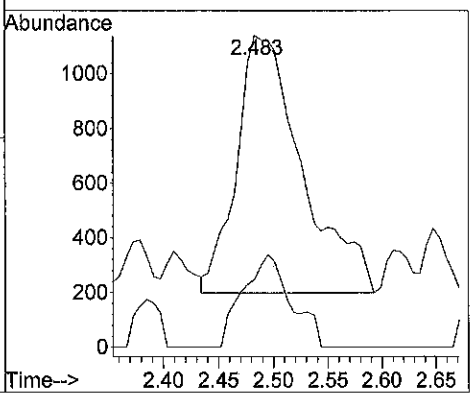




#9
Acetone
Concen: 0.43 ppb
RT: 2.483 min Scan# 310
Delta R.T. 0.012 min
Lab File: M0421008.d
Acq: 21 Apr 2014 10:46 am

Tgt Ion: 43 Resp: 3940

Ion	Ratio	Lower	Upper
43	100		
58	26.1	25.4	38.0



Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421009.d
Acq On : 21 Apr 2014 11:09 am
Operator :
Sample : 04-137-05b
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 21 11:22:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

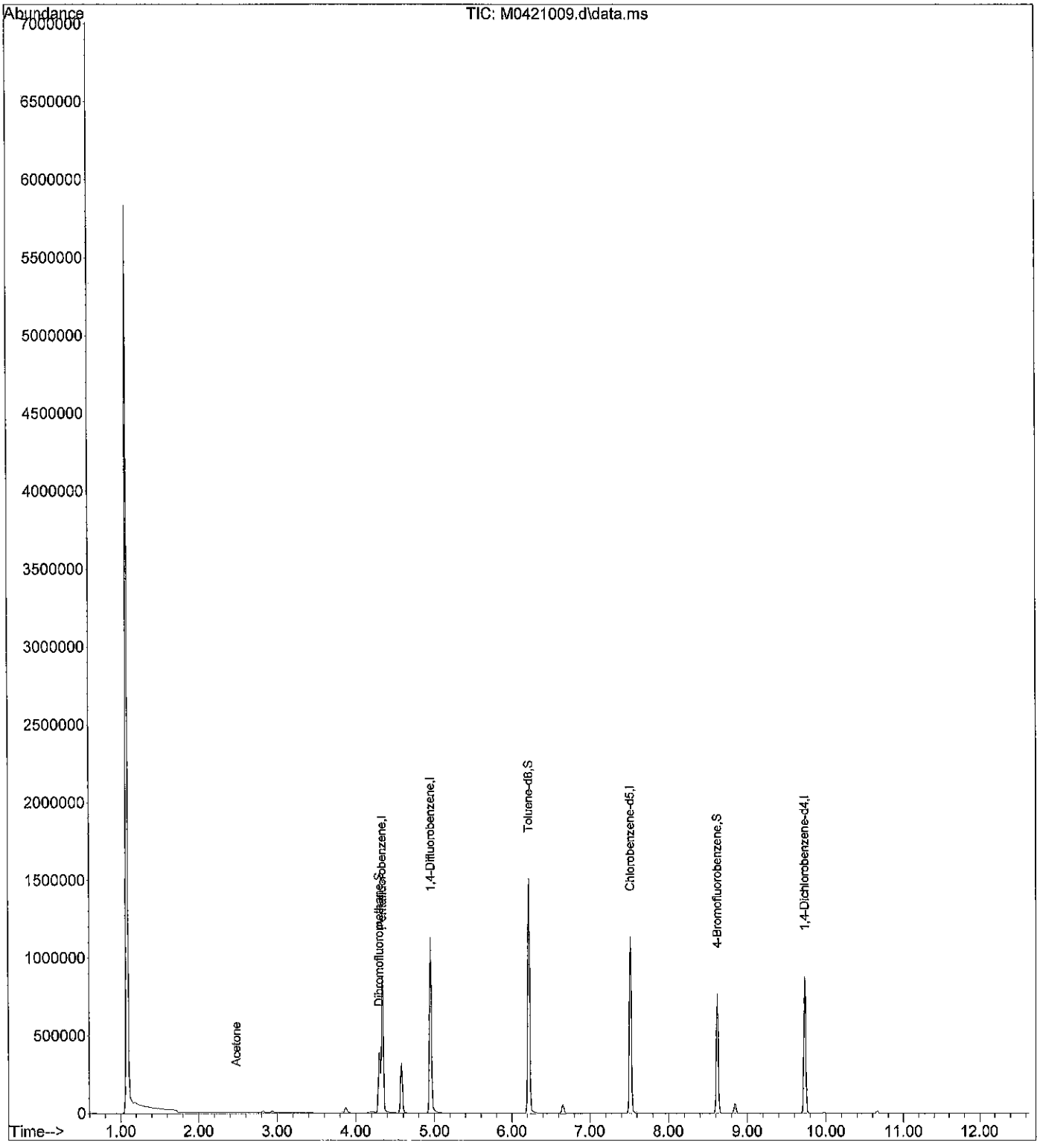
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	569199	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	829772	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	634209	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	247043	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	214280	8.27	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 82.70%			
36) Toluene-d8	6.220	98	934937	9.56	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.60%			
54) 4-Bromofluorobenzene	8.622	95	259107	9.20	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.00%			
Target Compounds						Qvalue
9) Acetone	2.483	43	3215	0.25	ppb	# 77

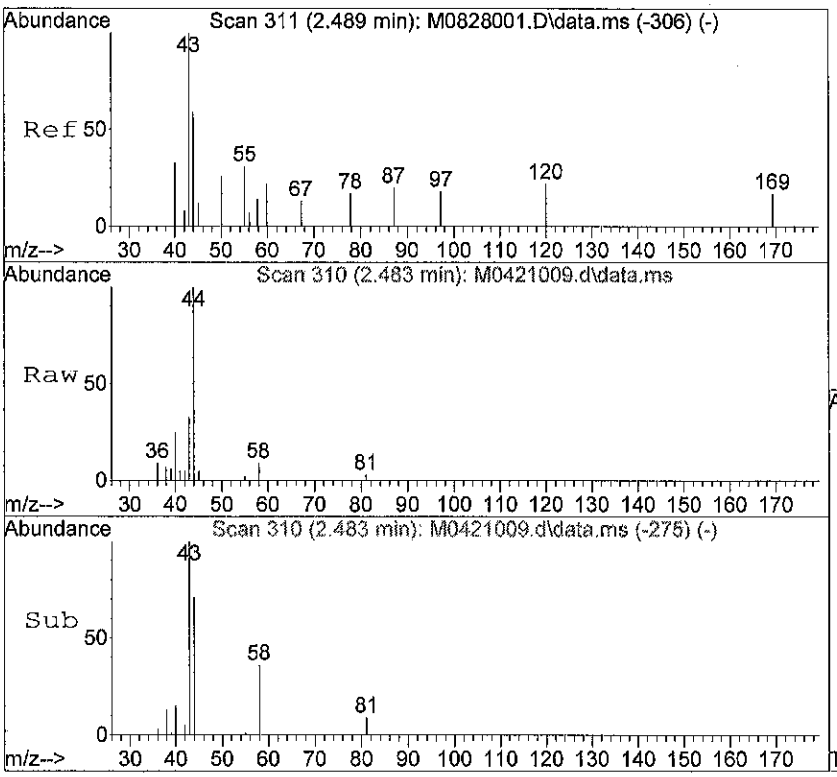
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421009.d
Acq On : 21 Apr 2014 11:09 am
Operator :
Sample : 04-137-05b
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 21 11:22:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

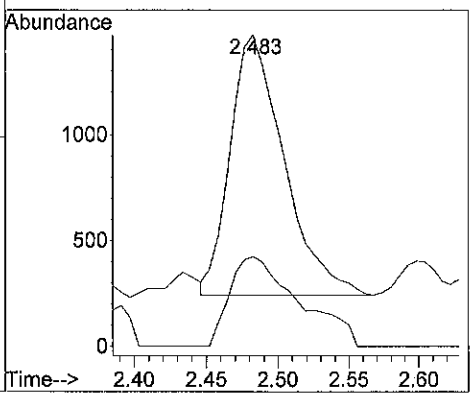




#9
Acetone
Concen: 0.25 ppb
RT: 2.483 min Scan# 310
Delta R.T. 0.012 min
Lab File: M0421009.d
Acq: 21 Apr 2014 11:09 am

Tgt Ion: 43 Resp: 3215

Ion	Ratio	Lower	Upper
43	100		
58	44.4	25.4	38.0#



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421006.d
Acq On : 21 Apr 2014 9:50 am
Operator :
Sample : MB0421W1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 21 10:26:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

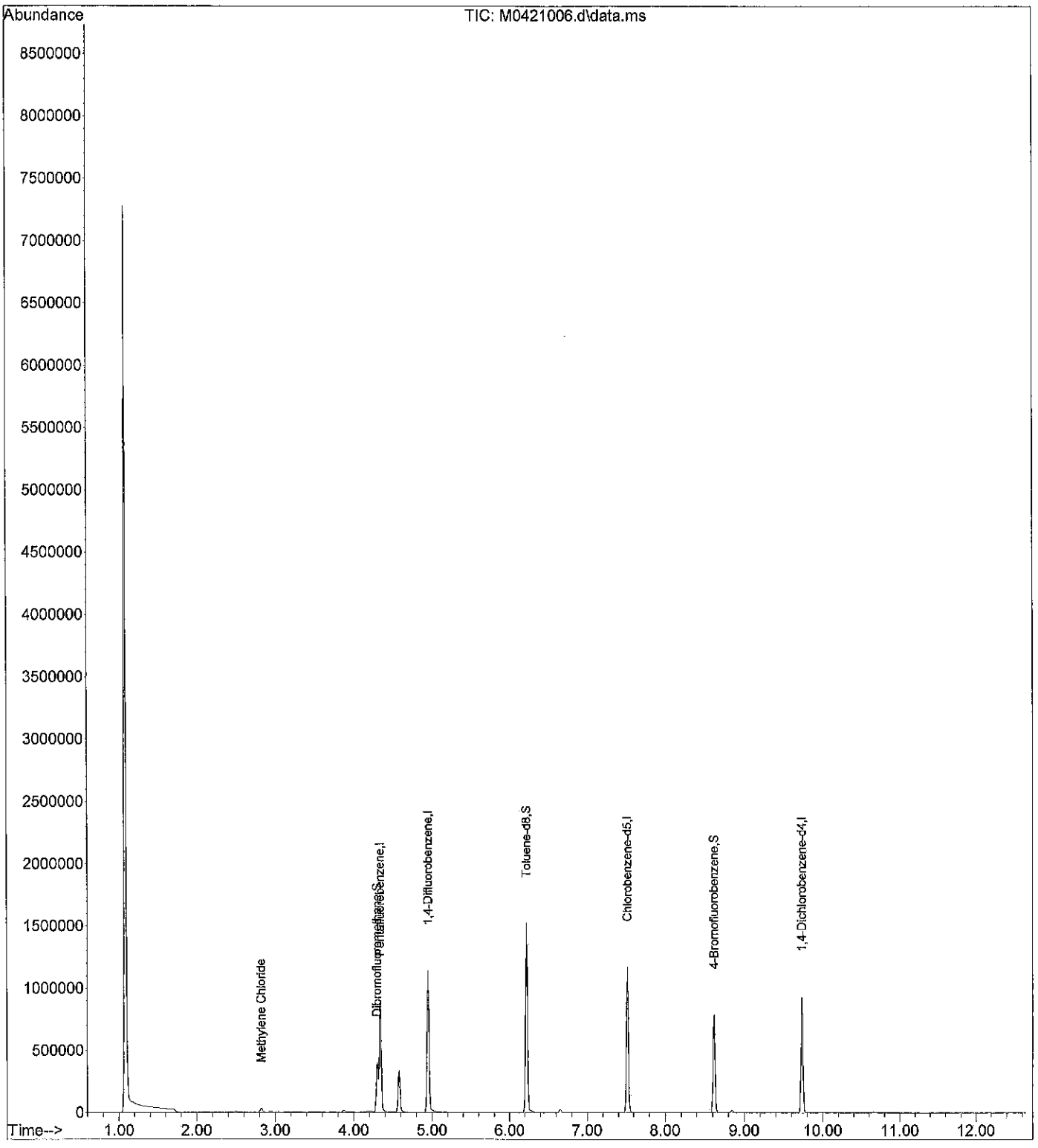
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	575038	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	840158	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	651278	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	255461	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	217851	8.32	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 83.20%			
36) Toluene-d8	6.220	98	948990	9.58	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.80%			
54) 4-Bromofluorobenzene	8.622	95	265186	9.17	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 91.70%			
Target Compounds						Qvalue
12) Methylene Chloride	2.824	49	17830	0.31	ppb	98

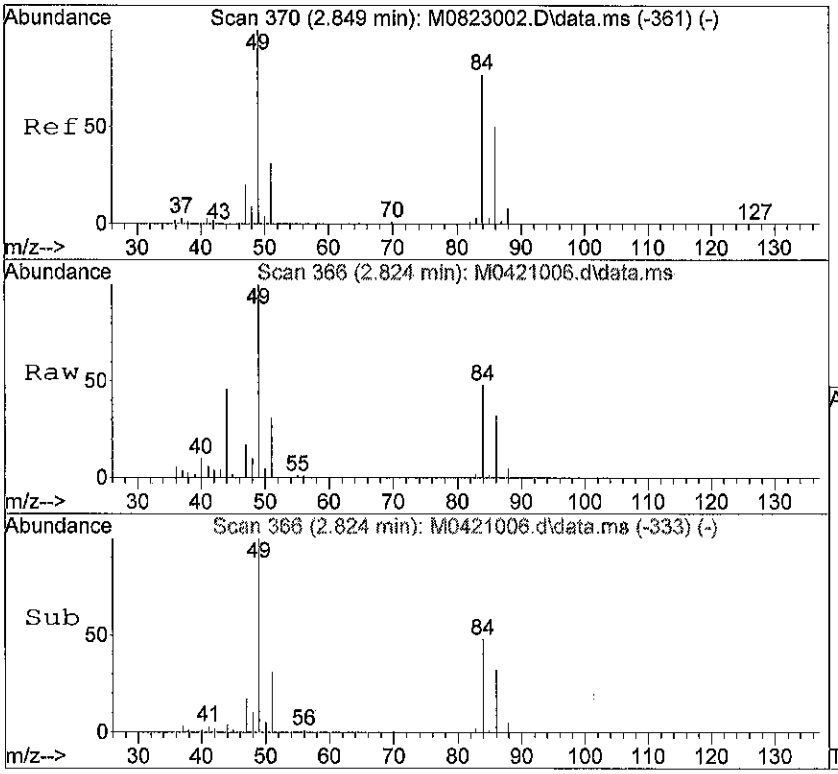
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421006.d
Acq On : 21 Apr 2014 9:50 am
Operator :
Sample : MB0421W1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 21 10:26:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

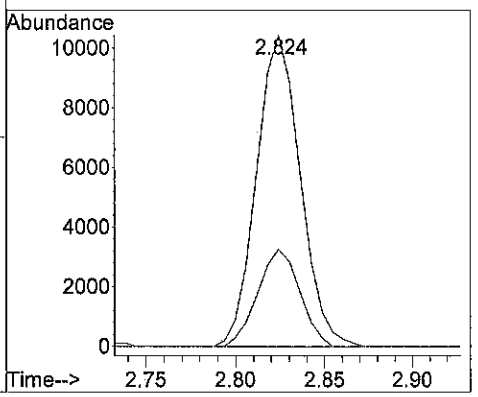




#12
Methylene Chloride
Concen: 0.31 ppb
RT: 2.824 min Scan# 366
Delta R.T. 0.000 min
Lab File: M0421006.d
Acq: 21 Apr 2014 9:50 am

Tgt Ion: 49 Resp: 17830

Ion	Ratio	Lower	Upper
49	100		
51	29.8	24.8	37.2



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421003.d
Acq On : 21 Apr 2014 8:39 am
Operator :
Sample : SB0421W1
Misc : V3-125-5
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 21 09:47:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

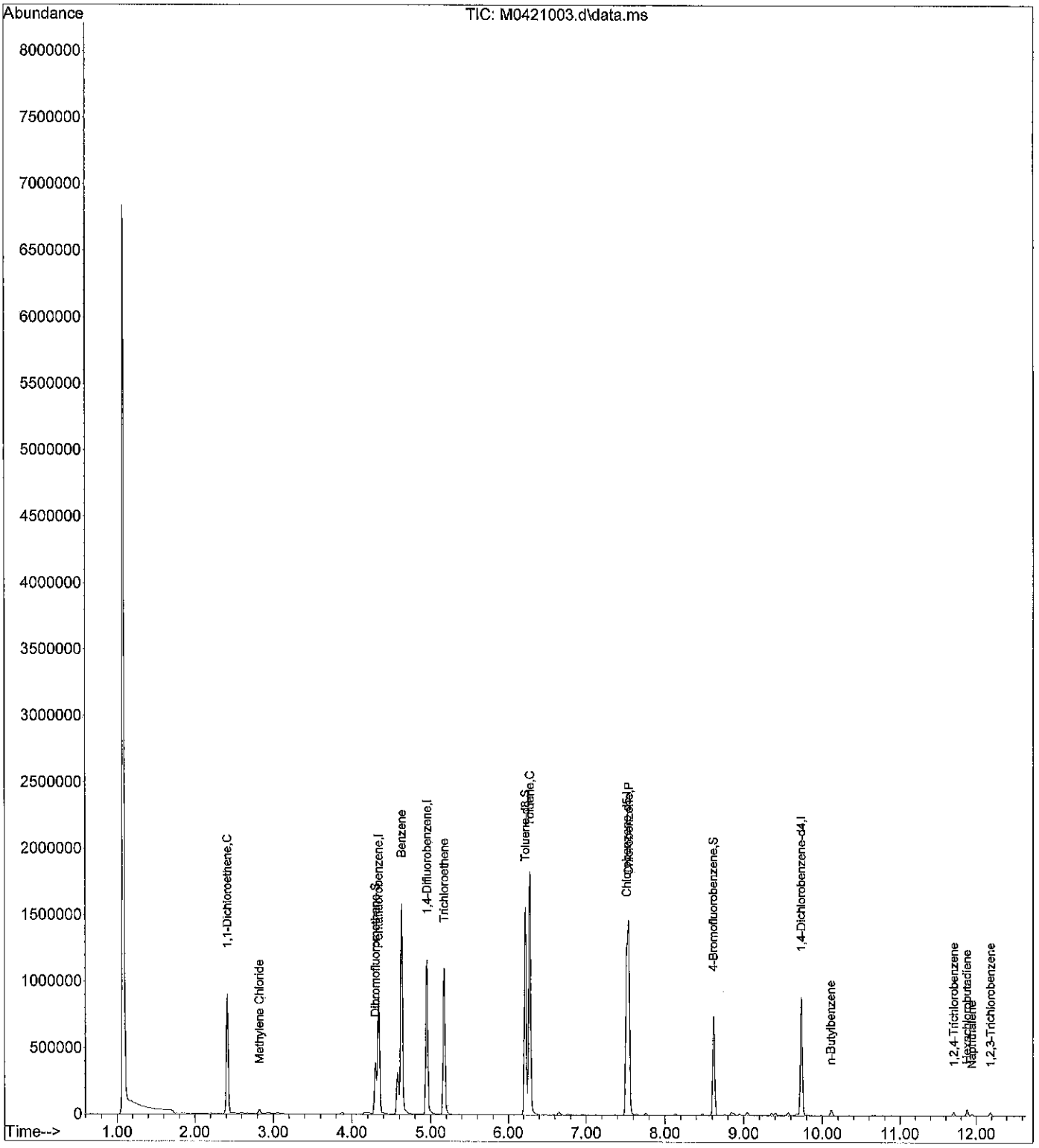
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	583615	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	851796	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	638455	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246954	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	213336	8.03	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.30%				
36) Toluene-d8	6.220	98	956216	9.53	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.30%				
54) 4-Bromofluorobenzene	8.616	95	259203	9.15	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 91.50%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	596716	8.89	ppb		100
12) Methylene Chloride	2.824	49	17811	0.31	ppb		94
26) Benzene	4.629	78	1175699	8.79	ppb		99
29) Trichloroethene	5.171	130	344421	9.17	ppb		99
37) Toluene	6.275	91	1268119	9.15	ppb		99
46) Chlorobenzene	7.543	112	732221	10.30	ppb		100
70) n-Butylbenzene	10.109	91	17669	0.23	ppb		94
72) 1,2,4-Trichlorobenzene	11.706	180	9441	1.22	ppb		98
73) Hexachlorobutadiene	11.877	225	10518	1.45	ppb		97
74) Naphthalene	11.944	128	9910	1.08	ppb		95
75) 1,2,3-Trichlorobenzene	12.188	180	8511	1.80	ppb	#	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421003.d
Acq On : 21 Apr 2014 8:39 am
Operator :
Sample : SB0421W1
Misc : V3-125-5
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 21 09:47:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421007.d
Acq On : 21 Apr 2014 10:13 am
Operator :
Sample : 04-137-01b
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 21 10:27:01 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

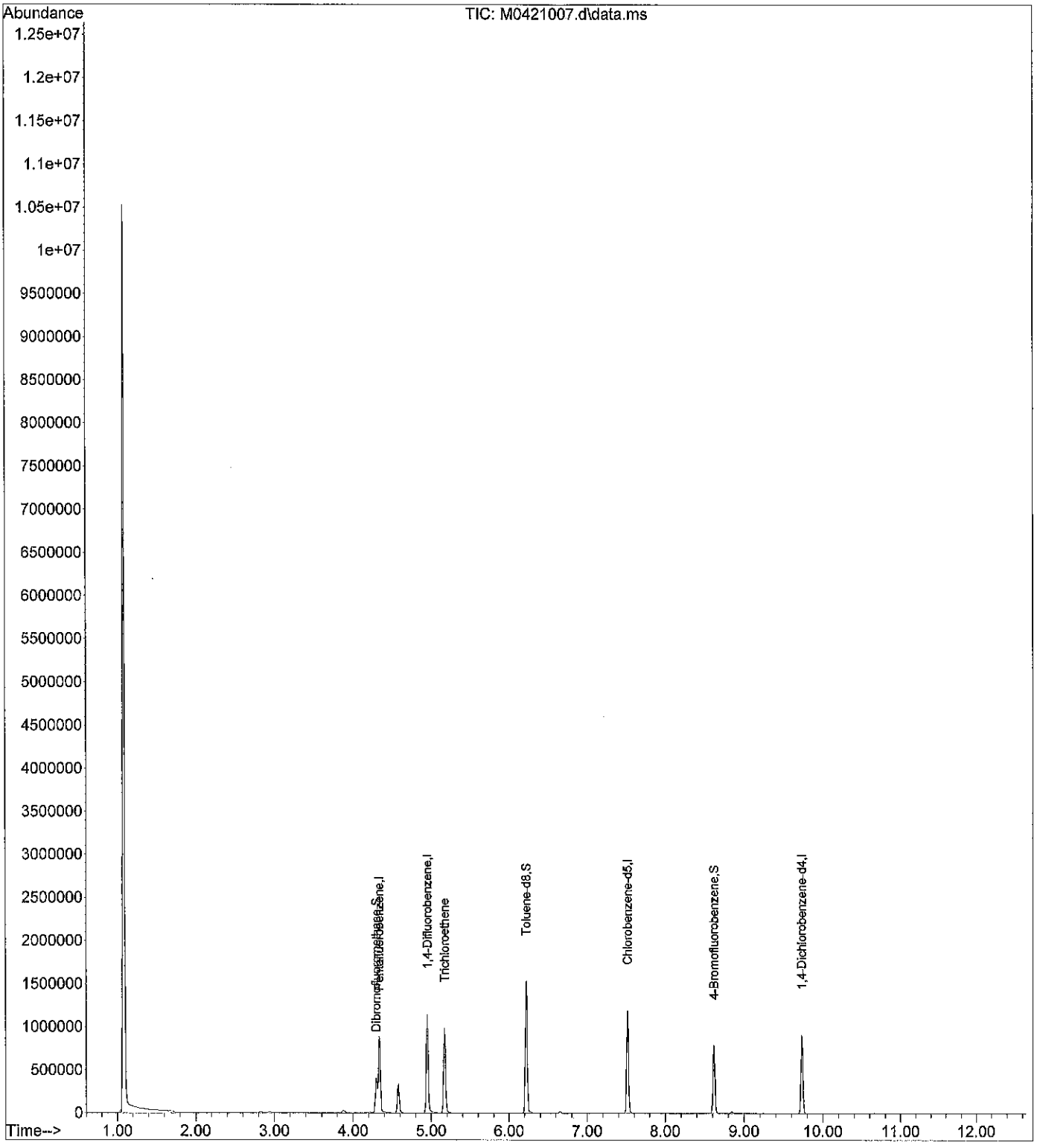
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	572939	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	840580	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	643845	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	248008	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	219418	8.41	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.10%			
36) Toluene-d8	6.220	98	950927	9.60	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.00%			
54) 4-Bromofluorobenzene	8.622	95	265459	9.29	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.90%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	311424	8.40	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421007.d
Acq On : 21 Apr 2014 10:13 am
Operator :
Sample : 04-137-01b
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 21 10:27:01 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421004.d
Acq On : 21 Apr 2014 9:03 am
Operator :
Sample : 04-137-01c MS
Misc : V3-125-5
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 21 09:48:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

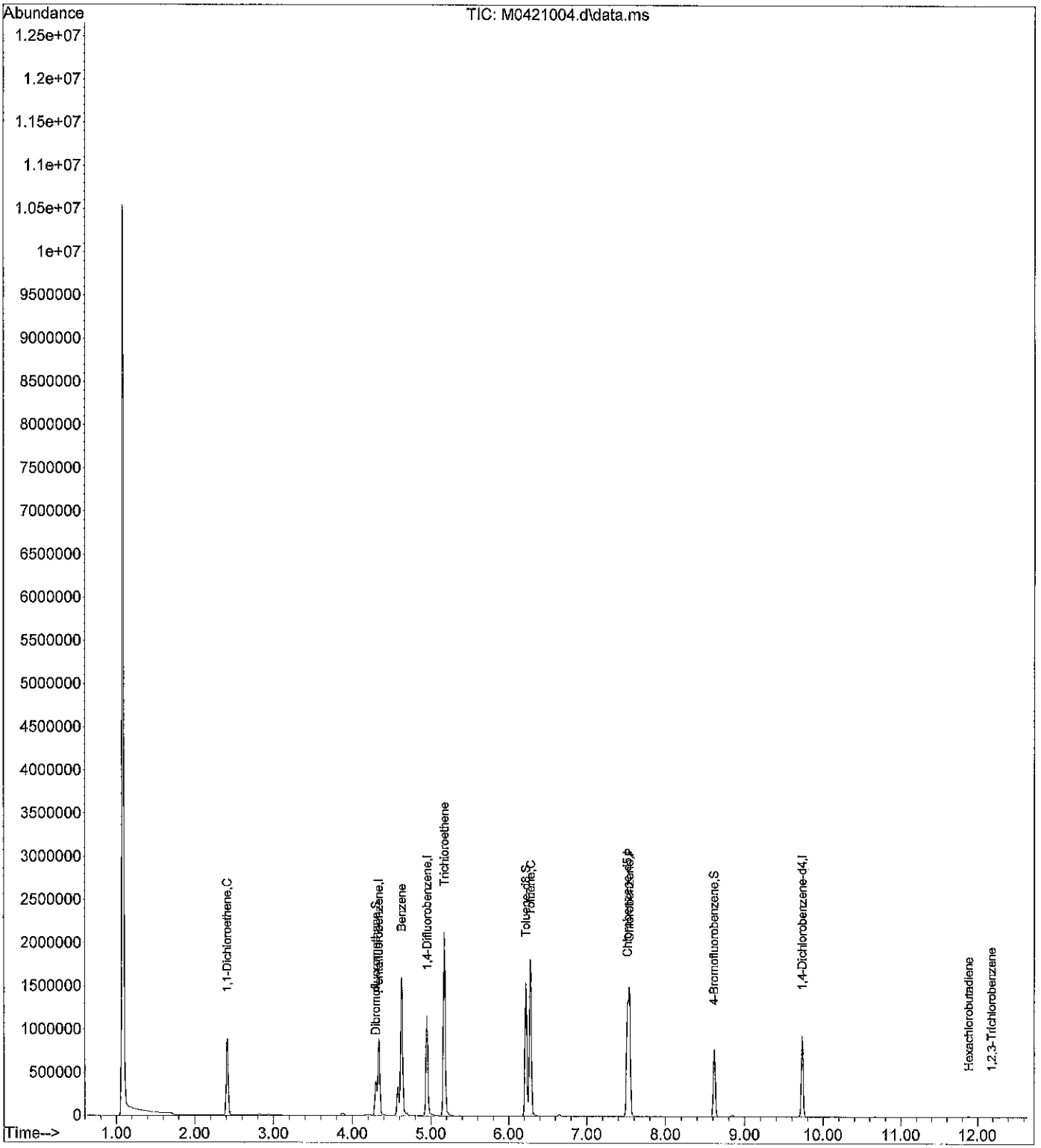
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	577702	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	854037	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	650908	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	257039	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	215973	8.21	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 82.10%				
36) Toluene-d8	6.220	98	954650	9.49	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 94.90%				
54) 4-Bromofluorobenzene	8.616	95	266730	9.23	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.30%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	575059	8.66	ppb		100
26) Benzene	4.629	78	1178102	8.90	ppb		100
29) Trichloroethene	5.171	130	665592	17.67	ppb		100
37) Toluene	6.281	91	1260297	9.07	ppb		99
46) Chlorobenzene	7.543	112	745209	10.28	ppb		100
73) Hexachlorobutadiene	11.883	225	1952	0.26	ppb		93
75) 1,2,3-Trichlorobenzene	12.182	180	1029	0.32	ppb	#	87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421004.d
Acq On : 21 Apr 2014 9:03 am
Operator :
Sample : 04-137-01c MS
Misc : V3-125-5
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 21 09:48:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421005.d
Acq On : 21 Apr 2014 9:26 am
Operator :
Sample : 04-137-01d MSD
Misc : V3-125-5
ALS Vial : 5 Sample Multiplier: 1

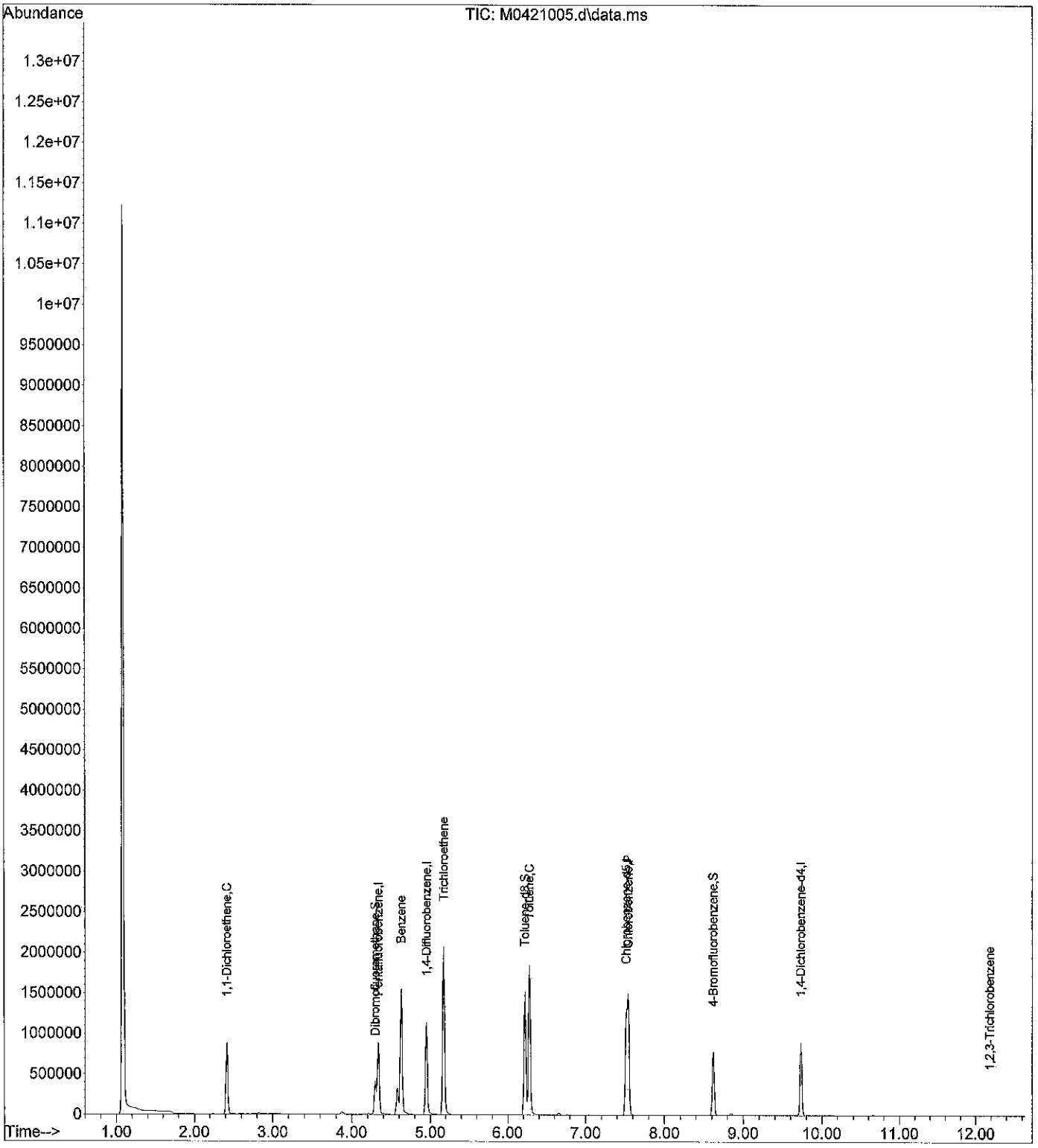
Quant Time: Apr 21 09:49:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	582849	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	844413	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	648272	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	251232	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	217940	8.21	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 82.10%				
36) Toluene-d8	6.220	98	946516	9.51	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.10%				
54) 4-Bromofluorobenzene	8.622	95	266697	9.27	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.70%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	569350	8.50	ppb		100
26) Benzene	4.629	78	1165226	8.73	ppb		100
29) Trichloroethene	5.171	130	669894	17.99	ppb		99
37) Toluene	6.275	91	1270584	9.25	ppb		100
46) Chlorobenzene	7.543	112	740051	10.25	ppb		100
75) 1,2,3-Trichlorobenzene	12.182	180	382	0.20	ppb	#	75

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421005.d
Acq On : 21 Apr 2014 9:26 am
Operator :
Sample : 04-137-01d MSD
Misc : V3-125-5
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 21 09:49:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Compound List Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014
Response Via : Initial Calibration

Total Cpnds : 75

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene	168	4.336	1.000	A	0	A	B
2		Dichlorodifluoromethane	85	1.209	0.279	A	1	A	B
3	P	Chloromethane	50	1.343	0.310	A	1	A	B
4	C	Vinyl Chloride	62	1.428	0.329	A	1	A	B
5		Bromomethane	96	1.690	0.390	A	1	A	B
6		Chloroethane	64	1.770	0.408	A	1	A	B
7		Trichlorofluoromethane	101	1.977	0.456	A	1	A	B
8	C	1,1-Dichloroethene	61	2.416	0.557	A	1	A	B
9		Acetone	43	2.471	0.570	L	1	A	B
10		Iodomethane	142	2.538	0.585	L	1	A	B
11		Carbon Disulfide	76	2.593	0.598	A	1	A	B
12		Methylene Chloride	49	2.824	0.651	A	1	A	B
13		(trans) 1,2-Dichloroethene	61	3.056	0.705	A	1	A	B
14		Methyl t-Butyl Ether	73	3.068	0.708	A	3	A	B
15	P	1,1-Dichloroethane	63	3.410	0.786	A	1	A	B
16		Vinyl Acetate	43	3.458	0.798	A	1	A	B
17		2,2-Dichloropropane	77	3.897	0.899	A	1	A	B
18		(cis) 1,2-Dichloroethene	61	3.897	0.899	A	1	A	B
19		2-Butanone	43	3.922	0.905	A	1	A	B
20		Bromochloromethane	130	4.098	0.945	A	3	A	B
21	C	Chloroform	83	4.165	0.961	A	1	A	B
22		1,1,1-Trichloroethane	97	4.318	0.996	A	1	A	B
23	S	Dibromofluoromethane	111	4.300	0.992	A	1	A	B
24		Carbon Tetrachloride	117	4.458	1.028	A	1	A	B
25		1,1-Dichloropropene	75	4.452	1.027	A	1	A	B
26		Benzene	78	4.629	1.068	A	1	A	B
27		1,2-Dichloroethane	62	4.641	1.070	A	1	A	B
28	I	1,4-Difluorobenzene	114	4.952	1.000	A	0	A	B
29		Trichloroethene	130	5.171	1.044	A	1	A	B
30	C	1,2-Dichloropropane	63	5.360	1.082	A	1	A	B
31		Dibromomethane	174	5.464	1.103	A	2	A	B
32		Bromodichloromethane	83	5.598	1.130	A	1	A	B
33		2-Chloroethyl Vinyl Ether	63	5.860	1.183	A	1	A	B
34		(cis) 1,3-Dichloropropene	75	5.982	1.208	A	1	A	B
35		Methyl Isobutyl Ketone	43	6.122	1.236	A	3	A	B
36	S	Toluene-d8	98	6.220	1.256	A	1	A	B
37	C	Toluene	91	6.275	1.267	A	1	A	B
38	I	Chlorobenzene-d5	117	7.518	1.000	A	1	A	B
39		(trans) 1,3-Dichloropropene	75	6.470	0.861	A	1	A	B
40		1,1,2-Trichloroethane	97	6.635	0.883	A	1	A	B
41		Tetrachloroethene	166	6.769	0.900	A	2	A	B
42		1,3-Dichloropropane	76	6.787	0.903	A	1	A	B
43		2-Hexanone	43	6.866	0.913	A	3	A	B
44		Dibromochloromethane	129	6.988	0.930	A	2	A	B
45		1,2-Dibromoethane	107	7.092	0.943	A	1	A	B
46	P	Chlorobenzene	112	7.543	1.003	A	1	A	B
47		1,1,1,2-Tetrachloroethane	133	7.616	1.013	A	2	A	B
48	C	Ethylbenzene	91	7.646	1.017	A	1	A	B
49		m,p-Xylene	91	7.756	1.032	A	1	A	B
50		o-Xylene	91	8.128	1.081	A	1	A	B
51		Styrene	104	8.140	1.083	A	0	A	B
52	P	Bromoform	173	8.311	1.105	A	2	A	B
53		Isopropylbenzene	105	8.476	1.127	A	1	A	B
54	S	4-Bromofluorobenzene	95	8.616	1.146	A	2	A	B

55 I	1,4-Dichlorobenzene-d4	152	9.731	1.000	A	1	A	B
56	Bromobenzene	156	8.762	0.900	A	1	A	B
57 P	1,1,2,2-Tetrachloroethane	83	8.762	0.900	A	1	A	B
58	1,2,3-Trichloropropane	75	8.799	0.904	A	1	A	B
59	n-Propylbenzene	91	8.872	0.912	A	1	A	B
60	2-Chlorotoluene	126	8.951	0.920	A	1	A	B
61	4-Chlorotoluene	126	9.055	0.931	A	1	A	B
62	1,3,5-Trimethylbenzene	105	9.043	0.929	A	1	A	B
63	tert-Butylbenzene	119	9.353	0.961	A	1	A	B
64	1,2,4-Trimethylbenzene	105	9.402	0.966	A	1	A	B
65	sec-Butylbenzene	105	9.567	0.983	A	1	A	B
66	1,3-Dichlorobenzene	146	9.670	0.994	A	1	A	B
67	p-Isopropyltoluene	119	9.713	0.998	A	1	A	B
68	1,4-Dichlorobenzene	146	9.756	1.003	A	1	A	B
69	1,2-Dichlorobenzene	146	10.116	1.040	A	1	A	B
70	n-Butylbenzene	91	10.109	1.039	A	1	A	B
71	1,2-Dibromo-3-chloropropane	157	10.884	1.118	A	2	A	B
72	1,2,4-Trichlorobenzene	180	11.701	1.202	A	2	A	B
73	Hexachlorobutadiene	225	11.883	1.221	A	2	A	B
74	Naphthalene	128	11.944	1.227	A	1	A	B
75	1,2,3-Trichlorobenzene	180	12.182	1.252	L	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

M140328W.M Fri Mar 28 13:13:22 2014

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014
Response Via : Initial Calibration

Calibration Files
.2 =M0328003.d 1 =M0328004.d 2 =M0328005.d 5 =M0328006.d 10 =M0328007.d 25 =M0328009.d
50 =M0328011.d .1 =M0716005.d

		Compound	.2	1	2	5	10	25	50	.1	Avg	%RSD
		ISTD										
1)	I	Pentafluorobenzene									0.767#	10.86
2)		Dichlorodifluo...	0.731	0.674	0.745	0.721	0.732	0.902	0.866		1.186	7.07
3)	P	Chloromethane	1.322	1.085	1.163	1.119	1.136	1.255	1.220		0.999#	5.52#
4)	C	Vinyl Chloride	1.043	0.912	0.981	0.959	0.988	1.068	1.043		0.475#	8.17
5)		Bromomethane	0.556	0.485	0.468	0.441	0.450	0.468	0.455		0.524#	8.82
6)		Chloroethane	0.625	0.496	0.509	0.492	0.506	0.527	0.513		1.076#	4.44
7)		Trichlorofluor...	1.156	1.019	1.056	1.033	1.070	1.117	1.080		1.150#	4.28#
8)	C	1,1-Dichloroet...	1.241	1.098	1.119	1.116	1.139	1.185	1.149		0.079#	15.41
9)		Acetone		0.091	0.094	0.079	0.071	0.071	0.065		0.707#	15.14
10)		Iodomethane		0.538	0.633	0.703	0.753	0.828	0.787		1.828#	4.27
11)		Carbon Disulfide	1.915	1.725	1.786	1.757	1.809	1.917	1.887		0.989#	9.22
12)		Methylene Chlo...	1.192	0.974	0.974	0.934	0.942	0.966	0.942		1.158#	5.43
13)		(trans) 1,2-Di...	1.274	1.090	1.151	1.091	1.147	1.190	1.161		0.729#	1.91
14)		Methyl t-Butyl...	0.739	0.711	0.732	0.724	0.712	0.737	0.748		1.319	2.47
15)	P	1,1-Dichloroet...	1.345	1.272	1.313	1.288	1.313	1.365	1.339		0.558#	6.53
16)		Vinyl Acetate		0.614	0.569	0.542	0.518	0.545			0.842#	2.31
17)		2,2-Dichloropr...	0.870	0.833	0.840	0.814	0.843	0.864	0.832		1.218#	3.17
18)		(cis) 1,2-Dich...	1.198	1.187	1.196	1.189	1.212	1.281	1.265		0.121#	4.60
19)		2-Butanone	0.125	0.124	0.129	0.120	0.116	0.119	0.113		0.255#	2.79
20)		Bromochloromet...	0.248	0.246	0.258	0.251	0.256	0.264	0.263		1.043#	3.72#
21)	C	Chloroform	1.120	1.006	1.026	1.020	1.022	1.063	1.041		1.005#	2.90
22)		1,1,1-Trichlor...	1.045	0.986	0.979	0.971	1.000	1.040	1.016		0.455#	2.52
23)	S	Dibromofluorom...	0.432	0.452	0.466	0.464	0.455	0.460	0.459		0.939#	4.33
24)		Carbon Tetrach...	1.007	0.907	0.921	0.894	0.918	0.975	0.953		0.871#	5.40
25)		1,1-Dichloropr...	0.957	0.826	0.855	0.825	0.850	0.898	0.887		2.291#	3.64
26)		Benzene	2.426	2.214	2.226	2.215	2.261	2.360	2.336		0.634#	1.46
27)		1,2-Dichloroet...	0.629	0.625	0.641	0.627	0.635	0.651	0.634			
		ISTD										
28)	I	1,4-Difluorobenzene									0.441#	5.29
29)		Trichloroethene	0.485	0.417	0.432	0.425	0.433	0.460	0.435		0.403#	3.55#
30)	C	1,2-Dichloropr...	0.380	0.396	0.404	0.399	0.397	0.420	0.421		0.129#	6.02
31)		Dibromomethane	0.113	0.127	0.135	0.131	0.129	0.135	0.134		0.400#	4.69
32)		Bromodichlorom...	0.366	0.406	0.402	0.392	0.396	0.417	0.423		0.022#	11.46
33)		2-Chloroethyl ...		0.019	0.022	0.020	0.020	0.022	0.026		0.411#	9.25
34)		(cis) 1,3-Dich...	0.357	0.379	0.399	0.410	0.417	0.457	0.460		0.147#	6.45
35)		Methyl Isobuty...	0.150	0.133	0.150	0.144	0.139	0.152	0.162		1.178#	1.16
36)	S	Toluene-d8	1.157	1.169	1.180	1.181	1.176	1.184	1.201		1.628#	4.88#
37)	C	Toluene	1.762	1.581	1.569	1.556	1.567	1.668	1.689			

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :

38)	I	Chlorobenzene-d5	ISTD								
39)		(trans) 1,3-Di...	0.329	0.326	0.342	0.341	0.362	0.382	0.382	0.352#	6.74
40)		1,1,2-Trichlor...	0.258	0.200	0.201	0.200	0.200	0.213	0.208	0.212#	10.00
41)		Tetrachloroethene	0.585	0.541	0.533	0.515	0.537	0.563	0.545	0.546#	4.10
42)		1,3-Dichloropr...	0.363	0.346	0.364	0.369	0.371	0.386	0.377	0.368#	3.43
43)		2-Hexanone	0.142	0.125	0.116	0.123	0.117	0.132	0.130	0.126#	7.09
44)		Dibromochlorom...	0.253	0.266	0.266	0.270	0.273	0.293	0.293	0.273#	5.38
45)		1,2-Dibromoethane	0.177	0.186	0.186	0.186	0.183	0.193	0.185	0.185#	2.57
46)	P	Chlorobenzene	1.255	1.079	1.070	1.047	1.080	1.139	1.123	1.113	6.29
47)		1,1,1,2-Tetrac...	0.341	0.354	0.343	0.353	0.362	0.379	0.379	0.359#	4.32
48)	C	Ethylbenzene	2.325	1.997	2.059	2.064	2.191	2.361	2.310	2.186#	6.78#
49)		m,p-Xylene	1.605	1.490	1.545	1.591	1.662	1.789	1.770	1.636#	6.82
50)		o-Xylene	1.494	1.366	1.422	1.447	1.507	1.624	1.603	1.495#	6.27
51)		Styrene	1.023	0.990	1.056	1.103	1.149	1.243	1.236	1.114#	8.97
52)	P	Bromoform	0.125	0.127	0.132	0.139	0.140	0.153	0.158	0.139	9.15
53)		Isopropylbenzene	1.831	1.673	1.754	1.804	1.913	2.064	2.019	1.865#	7.57
54)	S	4-Bromofluorob...	0.413	0.435	0.446	0.452	0.454	0.456	0.452	0.444#	3.48
55)	I	1,4-Dichlorobenzen...	ISTD								
56)		Bromobenzene	1.034	0.877	0.855	0.847	0.875	0.937	0.909	0.905#	7.16
57)	P	1,1,2,2-Tetrac...	0.459	0.445	0.425	0.427	0.414	0.440	0.458	0.438	3.93
58)		1,2,3-Trichlor...	0.352	0.338	0.369	0.338	0.335	0.349	0.341	0.346#	3.40
59)		n-Propylbenzene	6.049	4.935	4.930	4.942	5.346	5.647	5.494	5.335#	8.07
60)		2-Chlorotoluene	1.149	0.992	0.967	0.946	1.025	1.084	1.032	1.028#	6.82
61)		4-Chlorotoluene	1.079	0.964	0.958	0.954	1.011	1.056	1.040	1.009#	5.06
62)		1,3,5-Trimethy...	3.976	3.290	3.584	3.576	3.875	4.120	4.024	3.778#	7.96
63)		tert-Butylbenzene	3.231	2.588	2.781	2.779	3.103	3.224	3.128	2.977#	8.60
64)		1,2,4-Trimethy...	3.625	3.172	3.266	3.380	3.588	3.771	3.711	3.502#	6.57
65)		sec-Butylbenzene	4.557	3.886	3.983	4.040	4.421	4.650	4.517	4.293#	7.30
66)		1,3-Dichlorobe...	1.683	1.484	1.540	1.486	1.544	1.611	1.593	1.563#	4.57
67)		p-Isopropyltol...	3.569	2.941	3.184	3.180	3.473	3.704	3.617	3.381#	8.34
68)		1,4-Dichlorobe...	1.842	1.506	1.586	1.565	1.606	1.679	1.655	1.634#	6.61
69)		1,2-Dichlorobe...	1.147	1.061	1.102	1.111	1.127	1.195	1.194	1.134#	4.31
70)		n-Butylbenzene	3.362	2.757	2.828	2.927	3.122	3.314	3.297	3.086#	8.09
71)		1,2-Dibromo-3-...		0.040	0.049	0.048	0.050	0.056	0.056	0.050#	11.77
72)		1,2,4-Trichlor...	0.294	0.266	0.307	0.323	0.312	0.332	0.356	0.313#	9.10
73)		Hexachlorobuta...	0.353	0.269	0.277	0.291	0.281	0.290	0.290	0.293#	9.51
74)		Naphthalene		0.325	0.338	0.368	0.366	0.397	0.439	0.372#	11.18
75)		1,2,3-Trichlor...	0.123	0.149	0.177	0.203	0.199	0.196	0.211	0.180#	18.07

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	485934	10.00 ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	740470	10.00 ppb		0.00
38) Chlorobenzene-d5	7.518	117	555715	10.00 ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	198284	10.00 ppb		0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.293	111	209890	9.62 ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 96.20%			
36) Toluene-d8	6.220	98	856932	9.84 ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 98.40%			
54) 4-Bromofluorobenzene	8.616	95	229303	9.00 ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 90.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	7107	0.19 ppb		100
3) Chloromethane	1.343	50	12848	0.22 ppb		100
4) Vinyl Chloride	1.428	62	10132	0.21 ppb		92
5) Bromomethane	1.684	96	5406	0.24 ppb		94
6) Chloroethane	1.763	64	6077	0.24 ppb		98
7) Trichlorofluoromethane	1.977	101	11235	0.22 ppb		97
8) 1,1-Dichloroethene	2.416	61	12064	0.22 ppb		99
9) ~~Acetone~~	2.465	43	3046	0.32 ppb		92
10) ~~Iodomethane~~	2.538	142	4255	0.53 ppb		96
11) Carbon Disulfide	2.593	76	18609	0.21 ppb		95
12) Methylene Chloride	2.824	49	11589	0.24 ppb		97
13) (trans) 1,2-Dichloroet...	3.056	61	12377	0.23 ppb		99
14) Methyl t-Butyl Ether	3.068	73	7179	0.20 ppb	#	88
15) 1,1-Dichloroethane	3.410	63	13071	0.21 ppb		96
16) ~~Vinyl Acetate~~	3.458	43	7482	0.66 ppb	#	81
17) 2,2-Dichloropropane	3.891	77	8459	0.20 ppb	#	78
18) (cis) 1,2-Dichloroethene	3.897	61	11646	0.20 ppb		96
19) 2-Butanone	3.916	43	1217	0.21 ppb	#	52
20) Bromochloromethane	4.092	130	2414	0.20 ppb		97
21) Chloroform	4.165	83	10889	0.22 ppb		98
22) 1,1,1-Trichloroethane	4.312	97	10155	0.21 ppb	#	1
24) Carbon Tetrachloride	4.452	117	9784	0.22 ppb		98
25) 1,1-Dichloropropene	4.452	75	9303	0.22 ppb		95
26) Benzene	4.629	78	23574	0.22 ppb		97
27) 1,2-Dichloroethane	4.641	62	6112	0.20 ppb		94
29) Trichloroethene	5.171	130	7176	0.23 ppb		90
30) 1,2-Dichloropropane	5.360	63	5631	0.19 ppb		95
31) Dibromomethane	5.458	174	1675	0.17 ppb	#	91
32) Bromodichloromethane	5.598	83	5416	0.18 ppb		91
33) ~~2-Chloroethyl Vinyl Ether~~	5.860	63	266	2.33 ppb	#	66
34) (cis) 1,3-Dichloropropene	5.982	75	5288	0.17 ppb		97
35) Methyl Isobutyl Ketone	6.122	43	2224	0.21 ppb	#	86
37) Toluene	6.275	91	26096	0.22 ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	3652	0.19 ppb		95
40) 1,1,2-Trichloroethane	6.634	97	2870	0.25 ppb	#	81
41) Tetrachloroethene	6.763	166	6500	0.21 ppb		92
42) 1,3-Dichloropropane	6.787	76	4030	0.20 ppb		90
43) 2-Hexanone	6.866	43	1575	0.23 ppb	#	69
44) Dibromochloromethane	6.988	129	2814	0.19 ppb		95

SP 3-28-14

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

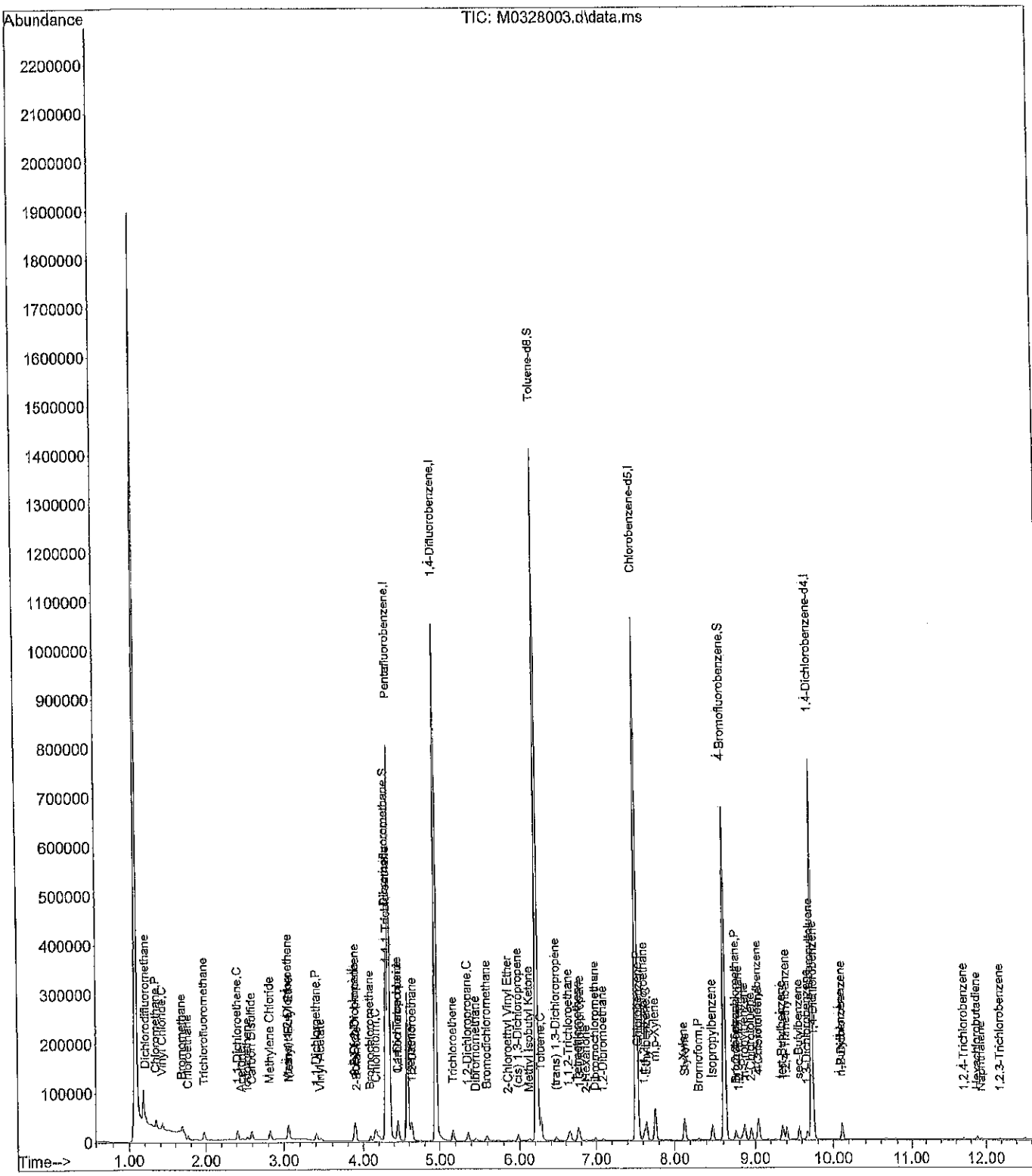
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	1962	0.20	ppb		100
46) Chlorobenzene	7.543	112	13952	0.23	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	3793	0.19	ppb		84
48) Ethylbenzene	7.646	91	25838	0.21	ppb		100
49) m,p-Xylene	7.756	91	35667	0.38	ppb		97
50) o-Xylene	8.128	91	16600	0.19	ppb		100
51) Styrene	8.140	104	11365	0.18	ppb		100
52) Bromoform	8.311	173	1384	0.18	ppb		93
53) Isopropylbenzene	8.476	105	20353	0.19	ppb		96
56) Bromobenzene	8.762	156	4101	0.24	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	1819	0.22	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	1394	0.22	ppb	#	100
59) n-Propylbenzene	8.872	91	23987	0.24	ppb		96
60) 2-Chlorotoluene	8.951	126	4557	0.23	ppb		98
61) 4-Chlorotoluene	9.055	126	4278	0.22	ppb		96
62) 1,3,5-Trimethylbenzene	9.043	105	15766	0.21	ppb		96
63) tert-Butylbenzene	9.353	119	12815	0.22	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	14377	0.20	ppb		97
65) sec-Butylbenzene	9.567	105	18071	0.21	ppb		96
66) 1,3-Dichlorobenzene	9.670	146	6674	0.21	ppb		100
67) p-Isopropyltoluene	9.713	119	14152	0.20	ppb		98
68) 1,4-Dichlorobenzene	9.756	146	7304	0.22	ppb		92
69) 1,2-Dichlorobenzene	10.116	146	4547	0.19	ppb		99
70) n-Butylbenzene	10.109	91	13331	0.20	ppb		99
72) 1,2,4-Trichlorobenzene	11.707	180	1167	0.10	ppb		93
73) Hexachlorobutadiene	11.877	225	1401	0.12	ppb		95
74) Naphthalene	11.944	128	1039	0.61	ppb	#	72
75) 1,2,3-Trichlorobenzene	12.188	180	489	0.21	ppb	#	67

(#) = qualifier out of range (m) = manual integration (+) = signals summed

SP 3.28.14

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	481933	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	739712	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	582356	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	231509	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	217611	10.05	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.50%				
36) Toluene-d8	6.220	98	864840	9.94	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.40%				
54) 4-Bromofluorobenzene	8.622	95	253379	9.49	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.208	85	32485	0.86	ppb		98
3) Chloromethane	1.343	50	52278	0.91	ppb		94
4) Vinyl Chloride	1.428	62	43937	0.93	ppb		97
5) Bromomethane	1.684	96	23394	1.06	ppb		100
6) Chloroethane	1.769	64	23889	0.96	ppb		100
7) Trichlorofluoromethane	1.977	101	49091	0.95	ppb		97
8) 1,1-Dichloroethene	2.416	61	52907	0.97	ppb		100
9) Acetone	2.470	43	4405	0.76	ppb		99
10) Iodomethane	2.537	142	25915	1.10	ppb		95
11) Carbon Disulfide	2.592	76	83153	0.97	ppb		100
12) Methylene Chloride	2.824	49	46955	0.99	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	52507	0.97	ppb		97
14) Methyl t-Butyl Ether	3.068	73	34289	0.98	ppb		96
15) 1,1-Dichloroethane	3.409	63	61308	0.98	ppb		99
16) Vinyl Acetate	3.458	43	29613	1.27	ppb		98
17) 2,2-Dichloropropane	3.891	77	40125	0.98	ppb		97
18) (cis) 1,2-Dichloroethene	3.897	61	57200	0.99	ppb		99
19) 2-Butanone	3.921	43	5999	1.04	ppb		92
20) Bromochloromethane	4.098	130	11861	0.97	ppb		99
21) Chloroform	4.165	83	48474	0.99	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	47516	0.98	ppb	#	1
24) Carbon Tetrachloride	4.458	117	43733	0.97	ppb		94
25) 1,1-Dichloropropene	4.452	75	39817	0.96	ppb		97
26) Benzene	4.629	78	106694	0.99	ppb		99
27) 1,2-Dichloroethane	4.641	62	30108	1.00	ppb		99
29) Trichloroethene	5.171	130	30865	0.98	ppb		99
30) 1,2-Dichloropropane	5.360	63	29302	0.98	ppb		100
31) Dibromomethane	5.464	174	9426	0.98	ppb		96
32) Bromodichloromethane	5.598	83	30058	1.02	ppb		97
33) 2-Chloroethyl Vinyl Ether	5.860	63	1418	3.82	ppb		99
34) (cis) 1,3-Dichloropropene	5.982	75	28003	0.90	ppb		98
35) Methyl Isobutyl Ketone	6.122	43	9833	0.91	ppb		97
37) Toluene	6.275	91	116964	0.97	ppb		97
39) (trans) 1,3-Dichloropr...	6.470	75	18996	0.93	ppb		96
40) 1,1,2-Trichloroethane	6.634	97	11672	0.96	ppb		94
41) Tetrachloroethene	6.768	166	31504	0.98	ppb		97
42) 1,3-Dichloropropane	6.787	76	20143	0.94	ppb		99
43) 2-Hexanone	6.866	43	7271	1.02	ppb	#	92
44) Dibromochloromethane	6.988	129	15481	0.97	ppb		95

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

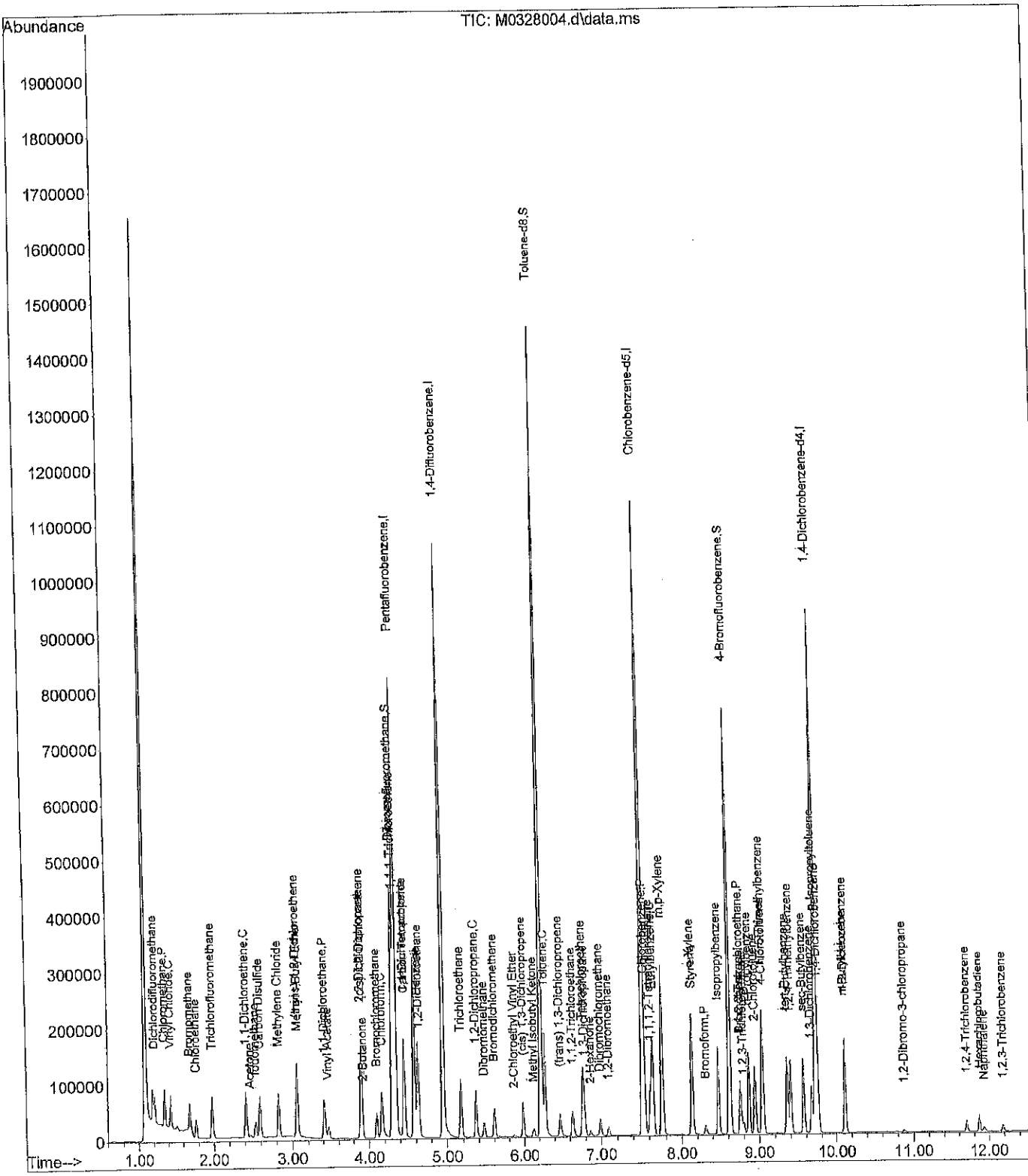
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.091	107	10813	1.03	ppb		89
46) Chlorobenzene	7.543	112	62839	0.97	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	20602	0.97	ppb		97
48) Ethylbenzene	7.646	91	116277	0.89	ppb		100
49) m,p-Xylene	7.756	91	173593	1.77	ppb		100
50) o-Xylene	8.128	91	79577	0.88	ppb		99
51) Styrene	8.140	104	57652	0.86	ppb		100
52) Bromoform	8.311	173	7371	0.89	ppb		96
53) Isopropylbenzene	8.475	105	97419	0.85	ppb		98
56) Bromobenzene	8.762	156	20310	1.04	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	10308	1.07	ppb		93
58) 1,2,3-Trichloropropane	8.798	75	7814	1.06	ppb	#	100
59) n-Propylbenzene	8.872	91	114247	0.97	ppb		99
60) 2-Chlorotoluene	8.951	126	22971	1.01	ppb		99
61) 4-Chlorotoluene	9.055	126	22328	0.99	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	76170	0.87	ppb		99
63) tert-Butylbenzene	9.353	119	59923	0.88	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	73440	0.87	ppb		98
65) sec-Butylbenzene	9.567	105	89955	0.89	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	34360	0.92	ppb		100
67) p-Isopropyltoluene	9.713	119	68086	0.82	ppb		97
68) 1,4-Dichlorobenzene	9.756	146	34860	0.89	ppb		94
69) 1,2-Dichlorobenzene	10.115	146	24567	0.87	ppb		100
70) n-Butylbenzene	10.109	91	63817	0.81	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.883	157	932	0.72	ppb	#	64
72) 1,2,4-Trichlorobenzene	11.706	180	6168	0.46	ppb		90
73) Hexachlorobutadiene	11.883	225	6218	0.47	ppb		97
74) Naphthalene	11.944	128	7514	0.99	ppb	#	94
75) 1,2,3-Trichlorobenzene	12.188	180	3448	0.52	ppb		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	479547	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	741239	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	592815	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	240183	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	223417	10.37	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.70%			
36) Toluene-d8	6.220	98	874445	10.03	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.30%			
54) 4-Bromofluorobenzene	8.622	95	264503	9.74	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	71435	1.89	ppb	100
3) Chloromethane	1.343	50	111552	1.95	ppb	100
4) Vinyl Chloride	1.428	62	94040	2.00	ppb	99
5) Bromomethane	1.690	96	44871	2.05	ppb	99
6) Chloroethane	1.769	64	48789	1.97	ppb	96
7) Trichlorofluoromethane	1.977	101	101236	1.97	ppb	99
8) 1,1-Dichloroethene	2.416	61	107339	1.98	ppb	100
9) Acetone	2.470	43	9060	2.24	ppb	96
10) Iodomethane	2.538	142	60687	2.01	ppb	99
11) Carbon Disulfide	2.592	76	171279	2.00	ppb	97
12) Methylene Chloride	2.824	49	93388	1.98	ppb	98
13) (trans) 1,2-Dichloroet...	3.056	61	110387	2.06	ppb	100
14) Methyl t-Butyl Ether	3.068	73	70253	2.02	ppb	98
15) 1,1-Dichloroethane	3.409	63	125922	2.02	ppb	98
16) Vinyl Acetate	3.458	43	54537	1.97	ppb	98
17) 2,2-Dichloropropane	3.891	77	80592	1.97	ppb	99
18) (cis) 1,2-Dichloroethene	3.897	61	114722	1.99	ppb	99
19) 2-Butanone	3.921	43	12367	2.16	ppb	91
20) Bromochloromethane	4.098	130	24764	2.04	ppb	97
21) Chloroform	4.165	83	98372	2.01	ppb	98
22) 1,1,1-Trichloroethane	4.318	97	93941	1.95	ppb #	1
24) Carbon Tetrachloride	4.458	117	88301	1.97	ppb	100
25) 1,1-Dichloropropene	4.452	75	82043	1.99	ppb	100
26) Benzene	4.629	78	213449	1.99	ppb	100
27) 1,2-Dichloroethane	4.641	62	61512	2.06	ppb	99
29) Trichloroethene	5.171	130	64112	2.02	ppb	93
30) 1,2-Dichloropropane	5.360	63	59895	2.01	ppb	100
31) Dibromomethane	5.464	174	20052	2.08	ppb	99
32) Bromodichloromethane	5.598	83	59547	2.02	ppb	100
33) 2-Chloroethyl Vinyl Ether	5.860	63	3284	6.24	ppb	100
34) (cis) 1,3-Dichloropropene	5.982	75	59196	1.90	ppb	99
35) Methyl Isobutyl Ketone	6.122	43	22165	2.05	ppb	98
37) Toluene	6.275	91	232630	1.92	ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	40523	1.94	ppb	100
40) 1,1,2-Trichloroethane	6.634	97	23818	1.92	ppb	94
41) Tetrachloroethene	6.768	166	63251	1.94	ppb	98
42) 1,3-Dichloropropane	6.787	76	43185	1.98	ppb	99
43) 2-Hexanone	6.866	43	13779	1.89	ppb	99
44) Dibromochloromethane	6.988	129	31574	1.95	ppb	99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

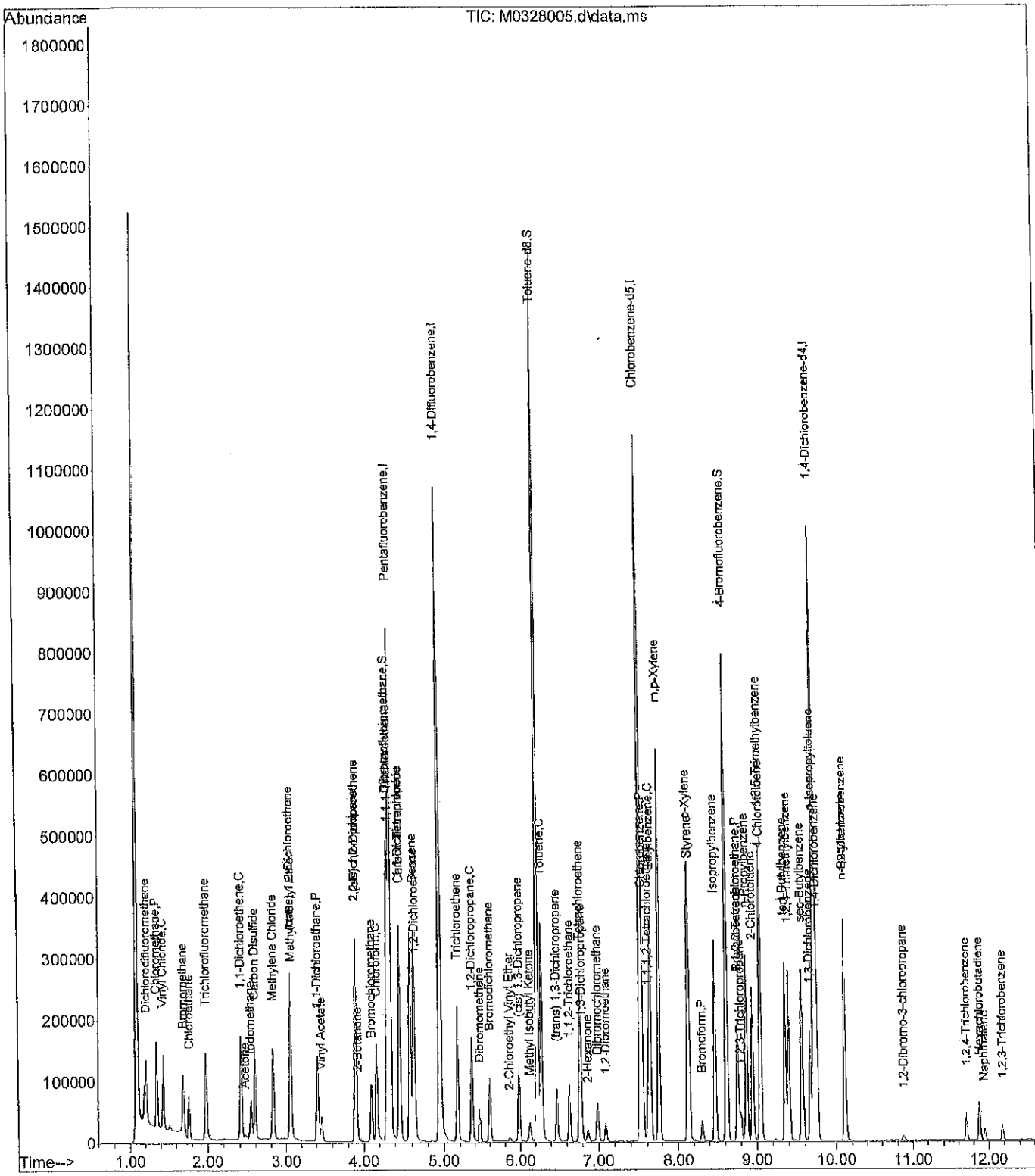
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	22108	2.07	ppb		94
46) Chlorobenzene	7.543	112	126905	1.93	ppb		98
47) 1,1,1,2-Tetrachloroethane	7.616	133	40634	1.89	ppb		97
48) Ethylbenzene	7.646	91	244080	1.84	ppb		99
49) m,p-Xylene	7.756	91	366249	3.67	ppb		100
50) o-Xylene	8.128	91	168553	1.82	ppb		99
51) Styrene	8.140	104	125222	1.84	ppb		100
52) Bromoform	8.311	173	15623	1.86	ppb		98
53) Isopropylbenzene	8.475	105	207918	1.79	ppb		99
56) Bromobenzene	8.762	156	41070	2.02	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	20399	2.05	ppb		97
58) 1,2,3-Trichloropropane	8.799	75	17704	2.32	ppb	#	100
59) n-Propylbenzene	8.872	91	236825	1.94	ppb		99
60) 2-Chlorotoluene	8.951	126	46452	1.98	ppb		97
61) 4-Chlorotoluene	9.055	126	46002	1.98	ppb		95
62) 1,3,5-Trimethylbenzene	9.042	105	172160	1.90	ppb		100
63) tert-Butylbenzene	9.353	119	133577	1.88	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	156865	1.80	ppb		98
65) sec-Butylbenzene	9.567	105	191336	1.83	ppb		100
66) 1,3-Dichlorobenzene	9.670	146	73967	1.92	ppb		96
67) p-Isopropyltoluene	9.713	119	152932	1.78	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	76190	1.87	ppb		96
69) 1,2-Dichlorobenzene	10.115	146	52952	1.80	ppb		99
70) n-Butylbenzene	10.109	91	135827	1.67	ppb		98
71) 1,2-Dibromo-3-chloropr...	10.883	157	2368	1.76	ppb		98
72) 1,2,4-Trichlorobenzene	11.706	180	14738	1.05	ppb		94
73) Hexachlorobutadiene	11.883	225	13288	0.97	ppb		99
74) Naphthalene	11.944	128	16224	1.48	ppb		97
75) 1,2,3-Trichlorobenzene	12.188	180	8510	1.04	ppb		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	487403	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	747722	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	596122	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	250793	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	226293	10.34	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.40%				
36) Toluene-d8	6.220	98	883353	10.04	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.40%				
54) 4-Bromofluorobenzene	8.616	95	269266	9.86	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	175706	4.58	ppb		100
3) Chloromethane	1.343	50	272665	4.68	ppb		99
4) Vinyl Chloride	1.428	62	233677	4.89	ppb		100
5) Bromomethane	1.684	96	107522	4.84	ppb		99
6) Chloroethane	1.770	64	119788	4.76	ppb		100
7) Trichlorofluoromethane	1.977	101	251859	4.81	ppb		99
8) 1,1-Dichloroethene	2.416	61	271961	4.94	ppb		98
9) Acetone	2.471	43	19243	5.36	ppb		100
10) Iodomethane	2.538	142	171354	4.82	ppb		99
11) Carbon Disulfide	2.593	76	428232	4.92	ppb		100
12) Methylene Chloride	2.824	49	227594	4.76	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	265907	4.87	ppb		98
14) Methyl t-Butyl Ether	3.068	73	176485	4.99	ppb		98
15) 1,1-Dichloroethane	3.409	63	313941	4.94	ppb		98
16) Vinyl Acetate	3.458	43	132036	4.05	ppb		100
17) 2,2-Dichloropropane	3.891	77	198435	4.78	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	289717	4.95	ppb		100
19) 2-Butanone	3.922	43	29280	5.04	ppb		95
20) Bromochloromethane	4.098	130	61061	4.94	ppb		97
21) Chloroform	4.165	83	248538	5.00	ppb		100
22) 1,1,1-Trichloroethane	4.318	97	236699	4.83	ppb	#	48
24) Carbon Tetrachloride	4.458	117	217779	4.78	ppb		99
25) 1,1-Dichloropropene	4.452	75	201088	4.81	ppb		99
26) Benzene	4.629	78	539722	4.94	ppb		100
27) 1,2-Dichloroethane	4.641	62	152728	5.02	ppb		100
29) Trichloroethene	5.171	130	158883	4.97	ppb		97
30) 1,2-Dichloropropane	5.360	63	149194	4.96	ppb		98
31) Dibromomethane	5.464	174	48876	5.02	ppb		96
32) Bromodichloromethane	5.598	83	146557	4.93	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	7478	11.60	ppb	#	90
34) (cis) 1,3-Dichloropropene	5.982	75	153320	4.87	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	53853	4.94	ppb		96
37) Toluene	6.275	91	581598	4.77	ppb		98
39) (trans) 1,3-Dichloropr...	6.470	75	101688	4.84	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	59584	4.77	ppb		96
41) Tetrachloroethene	6.769	166	153550	4.68	ppb		99
42) 1,3-Dichloropropane	6.787	76	109881	5.00	ppb		100
43) 2-Hexanone	6.866	43	36571	4.99	ppb	#	97
44) Dibromochloromethane	6.988	129	80368	4.94	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

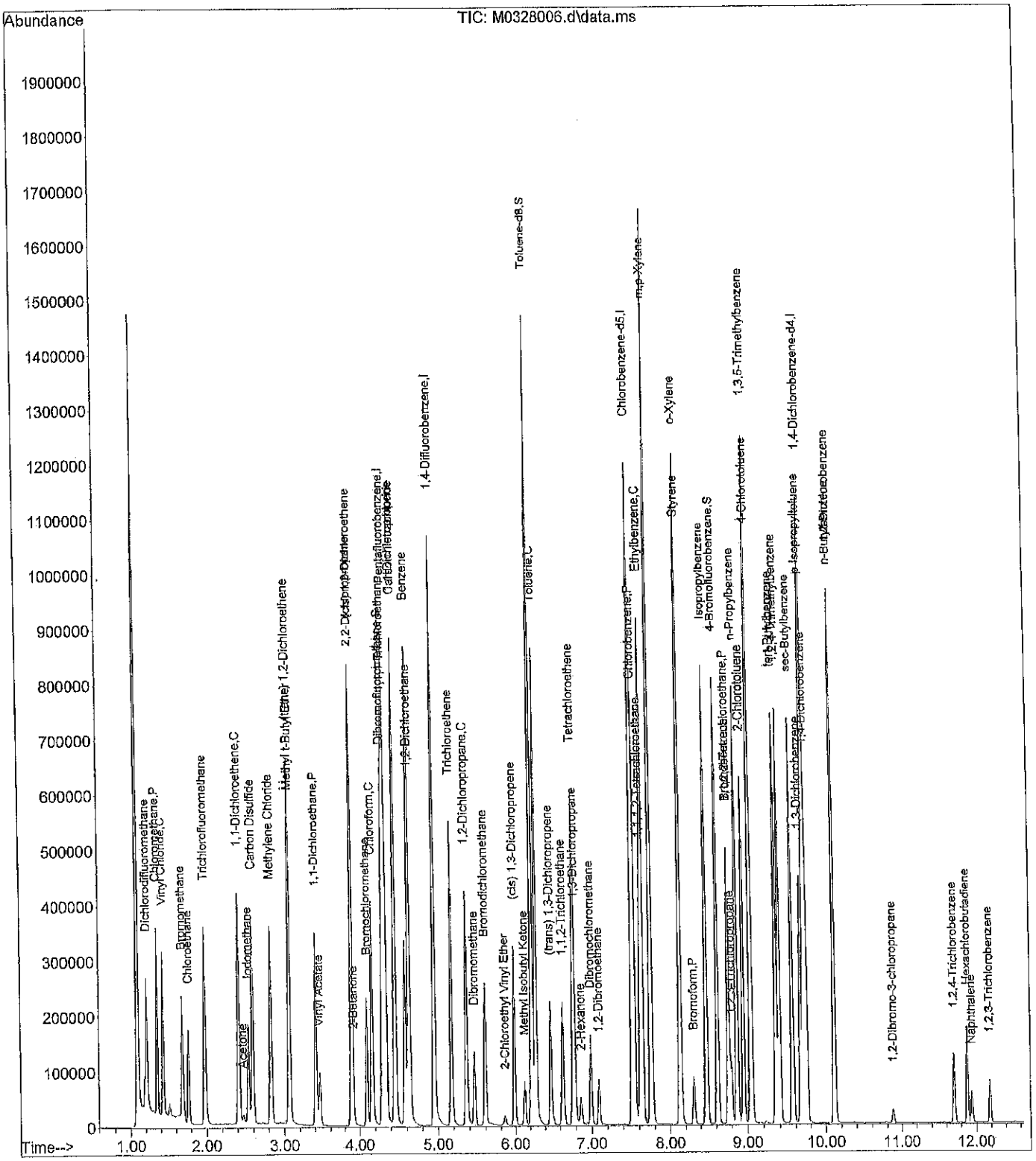
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	55408	5.15	ppb		94
46) Chlorobenzene	7.543	112	312120	4.72	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	105314	4.86	ppb		100
48) Ethylbenzene	7.646	91	615237	4.61	ppb		100
49) m,p-Xylene	7.756	91	948174	9.45	ppb		100
50) o-Xylene	8.128	91	431278	4.64	ppb		99
51) Styrene	8.140	104	328797	4.81	ppb		100
52) Bromoform	8.311	173	41308	4.89	ppb		97
53) Isopropylbenzene	8.476	105	537723	4.60	ppb		100
56) Bromobenzene	8.762	156	106237	5.00	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	53508	5.15	ppb		95
58) 1,2,3-Trichloropropane	8.799	75	42362	5.32	ppb	#	100
59) n-Propylbenzene	8.872	91	619715	4.86	ppb		99
60) 2-Chlorotoluene	8.951	126	118651	4.84	ppb		99
61) 4-Chlorotoluene	9.055	126	119653	4.92	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	448413	4.74	ppb		99
63) tert-Butylbenzene	9.353	119	348521	4.70	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	423815	4.65	ppb		100
65) sec-Butylbenzene	9.567	105	506584	4.64	ppb		100
66) 1,3-Dichlorobenzene	9.670	146	186299	4.62	ppb		98
67) p-Isopropyltoluene	9.713	119	398736	4.45	ppb		98
68) 1,4-Dichlorobenzene	9.756	146	196227	4.62	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	139284	4.54	ppb		98
70) n-Butylbenzene	10.109	91	366974	4.31	ppb		100
71) 1,2-Dibromo-3-chloropr...	10.884	157	6040	4.30	ppb		92
72) 1,2,4-Trichlorobenzene	11.707	180	40513	2.76	ppb		97
73) Hexachlorobutadiene	11.883	225	36435	2.56	ppb		98
74) Naphthalene	11.944	128	46161	3.10	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	25509	2.71	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	489227	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	759757	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	599575	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246718	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	222542	10.13	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 101.30%				
36) Toluene-d8	6.220	98	893363	10.00	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.00%				
54) 4-Bromofluorobenzene	8.616	95	271986	9.90	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	358326	9.31	ppb		100
3) Chloromethane	1.343	50	555937	9.51	ppb		99
4) Vinyl Chloride	1.428	62	483276	10.07	ppb		100
5) Bromomethane	1.690	96	219911	9.85	ppb		100
6) Chloroethane	1.770	64	247386	9.79	ppb		100
7) Trichlorofluoromethane	1.977	101	523334	9.97	ppb		100
8) 1,1-Dichloroethene	2.416	61	557386	10.08	ppb		99
9) Acetone	2.471	43	34774	10.16	ppb		99
10) Iodomethane	2.538	142	368612	9.85	ppb		99
11) Carbon Disulfide	2.593	76	884927	10.14	ppb		99
12) Methylene Chloride	2.824	49	460832	9.60	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	560950	10.24	ppb		100
14) Methyl t-Butyl Ether	3.068	73	348111	9.80	ppb		99
15) 1,1-Dichloroethane	3.410	63	642292	10.08	ppb		100
16) Vinyl Acetate	3.458	43	253649	7.34	ppb		99
17) 2,2-Dichloropropane	3.897	77	412258	9.89	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	592869	10.09	ppb		99
19) 2-Butanone	3.922	43	56987	9.78	ppb		98
20) Bromochloromethane	4.098	130	125464	10.11	ppb		99
21) Chloroform	4.165	83	500093	10.03	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	488995	9.94	ppb		98
24) Carbon Tetrachloride	4.458	117	448921	9.82	ppb		98
25) 1,1-Dichloropropene	4.452	75	415631	9.89	ppb		99
26) Benzene	4.629	78	1106258	10.09	ppb		99
27) 1,2-Dichloroethane	4.641	62	310436	10.17	ppb		100
29) Trichloroethene	5.171	130	328989	10.12	ppb		99
30) 1,2-Dichloropropane	5.360	63	301712	9.86	ppb		99
31) Dibromomethane	5.464	174	97928	9.89	ppb		99
32) Bromodichloromethane	5.598	83	300904	9.96	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	14914	20.86	ppb	#	88
34) (cis) 1,3-Dichloropropene	5.982	75	316852	9.91	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	105947	9.57	ppb		99
37) Toluene	6.275	91	1190855	9.61	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	217027	10.28	ppb		98
40) 1,1,2-Trichloroethane	6.635	97	120206	9.58	ppb		97
41) Tetrachloroethene	6.769	166	321992	9.76	ppb		99
42) 1,3-Dichloropropane	6.787	76	222149	10.05	ppb		99
43) 2-Hexanone	6.866	43	70181	9.53	ppb		98
44) Dibromochloromethane	6.988	129	163728	10.00	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

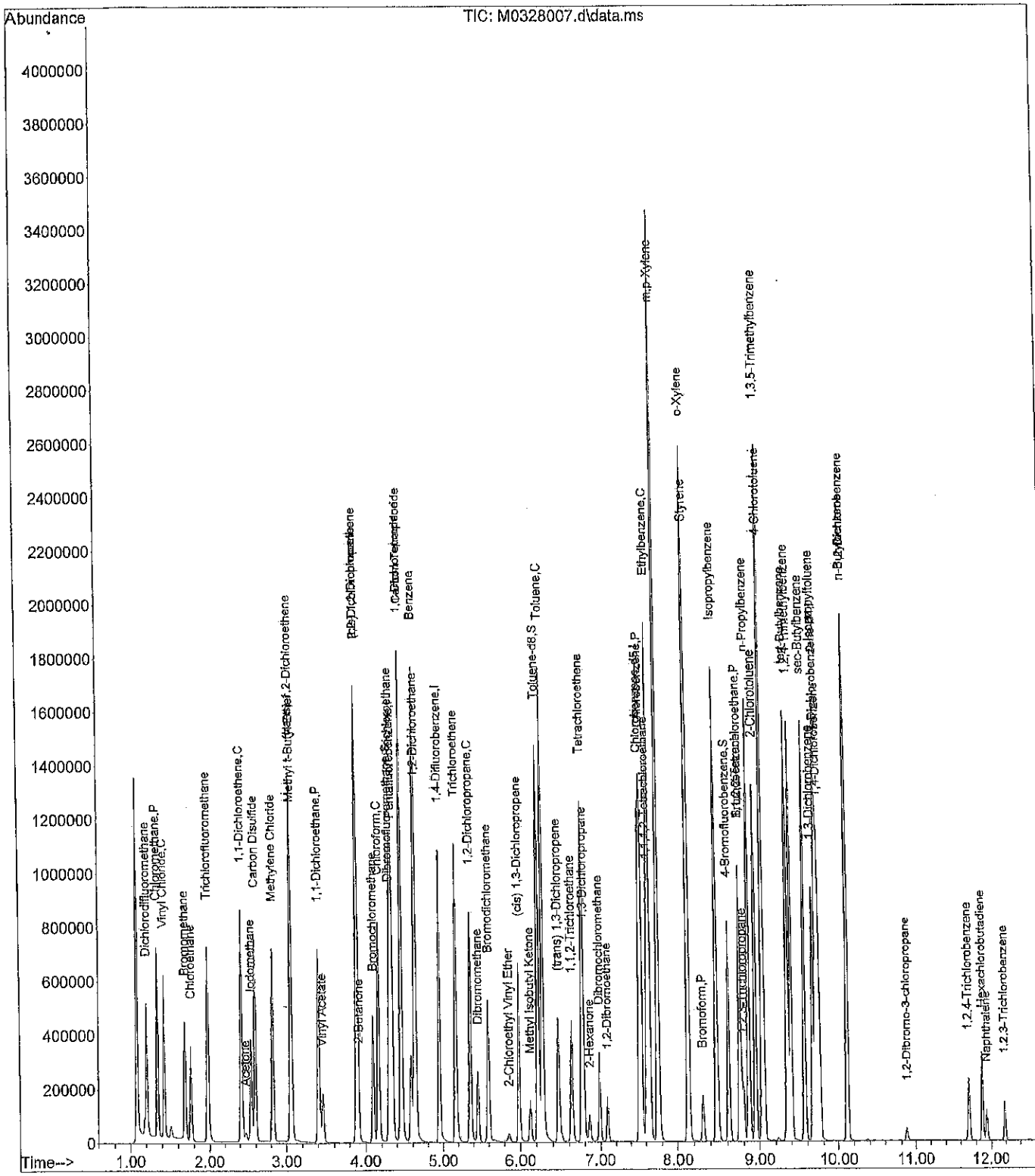
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	109725	10.14	ppb		97
46) Chlorobenzene	7.543	112	647533	9.74	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	217287	9.97	ppb		98
48) Ethylbenzene	7.646	91	1313400	9.79	ppb		100
49) m,p-Xylene	7.756	91	1993585	19.75	ppb		99
50) o-Xylene	8.128	91	903632	9.66	ppb		98
51) Styrene	8.140	104	688761	10.02	ppb		100
52) Bromoform	8.311	173	83704	9.85	ppb		97
53) Isopropylbenzene	8.476	105	1147125	9.75	ppb		100
56) Bromobenzene	8.762	156	215852	10.33	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	102118	9.98	ppb		99
58) 1,2,3-Trichloropropane	8.799	75	82731	10.56	ppb	#	100
59) n-Propylbenzene	8.872	91	1318888	10.52	ppb		99
60) 2-Chlorotoluene	8.951	126	252805	10.48	ppb		98
61) 4-Chlorotoluene	9.055	126	249463	10.43	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	956130	10.27	ppb		99
63) tert-Butylbenzene	9.353	119	765683	10.50	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	885124	9.88	ppb		99
65) sec-Butylbenzene	9.567	105	1090861	10.15	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	380986	9.60	ppb		99
67) p-Isopropyltoluene	9.713	119	856914	9.72	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	396253	9.49	ppb		99
69) 1,2-Dichlorobenzene	10.116	146	278161	9.21	ppb		99
70) n-Butylbenzene	10.109	91	770172	9.19	ppb		100
71) 1,2-Dibromo-3-chloropr...	10.884	157	12386	8.97	ppb		87
72) 1,2,4-Trichlorobenzene	11.701	180	77070	5.34	ppb		99
73) Hexachlorobutadiene	11.883	225	69390	4.95	ppb		98
74) Naphthalene	11.944	128	90183	5.61	ppb		98
75) 1,2,3-Trichlorobenzene	12.182	180	49016	5.15	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	497601	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	768052	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	607515	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	252975	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	229055	10.25	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.50%				
36) Toluene-d8	6.220	98	909694	10.07	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.70%				
54) 4-Bromofluorobenzene	8.622	95	277129	9.95	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.50%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	1121507	28.64	ppb		99
3) Chloromethane	1.343	50	1561206	26.25	ppb		100
4) Vinyl Chloride	1.428	62	1328160	27.20	ppb		100
5) Bromomethane	1.684	96	581881	25.64	ppb		99
6) Chloroethane	1.770	64	655545	25.52	ppb		99
7) Trichlorofluoromethane	1.977	101	1389716	26.02	ppb		99
8) 1,1-Dichloroethene	2.416	61	1474120	26.22	ppb		99
9) Acetone	2.471	43	87736	26.13	ppb		98
10) Iodomethane	2.538	142	1029759	26.31	ppb		98
11) Carbon Disulfide	2.593	76	2384649	26.86	ppb		99
12) Methylene Chloride	2.824	49	1201171	24.59	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	1480100	26.56	ppb		99
14) Methyl t-Butyl Ether	3.068	73	917317	25.39	ppb		99
15) 1,1-Dichloroethane	3.410	63	1697554	26.18	ppb		99
16) Vinyl Acetate	3.458	43	677905	18.53	ppb		99
17) 2,2-Dichloropropane	3.897	77	1075056	25.36	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	1593641	26.66	ppb		100
19) 2-Butanone	3.922	43	148430	25.04	ppb		98
20) Bromochloromethane	4.098	130	328851	26.05	ppb		99
21) Chloroform	4.165	83	1322341	26.07	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	1293343	25.86	ppb	#	68
24) Carbon Tetrachloride	4.458	117	1213430	26.09	ppb		100
25) 1,1-Dichloropropene	4.452	75	1117703	26.16	ppb		100
26) Benzene	4.629	78	2935857	26.34	ppb		99
27) 1,2-Dichloroethane	4.641	62	810173	26.11	ppb		99
29) Trichloroethene	5.171	130	884095	26.91	ppb		97
30) 1,2-Dichloropropane	5.360	63	807229	26.10	ppb		99
31) Dibromomethane	5.464	174	260025	25.99	ppb		98
32) Bromodichloromethane	5.598	83	801089	26.22	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	43191	56.05	ppb	#	86
34) (cis) 1,3-Dichloropropene	5.982	75	878404	27.19	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	291919	26.08	ppb		98
37) Toluene	6.281	91	3203081	25.57	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	580541	27.13	ppb		98
40) 1,1,2-Trichloroethane	6.634	97	324195	25.49	ppb		96
41) Tetrachloroethene	6.769	166	854911	25.57	ppb		100
42) 1,3-Dichloropropane	6.787	76	586797	26.20	ppb		100
43) 2-Hexanone	6.866	43	200018	26.80	ppb		100
44) Dibromochloromethane	6.988	129	444656	26.79	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

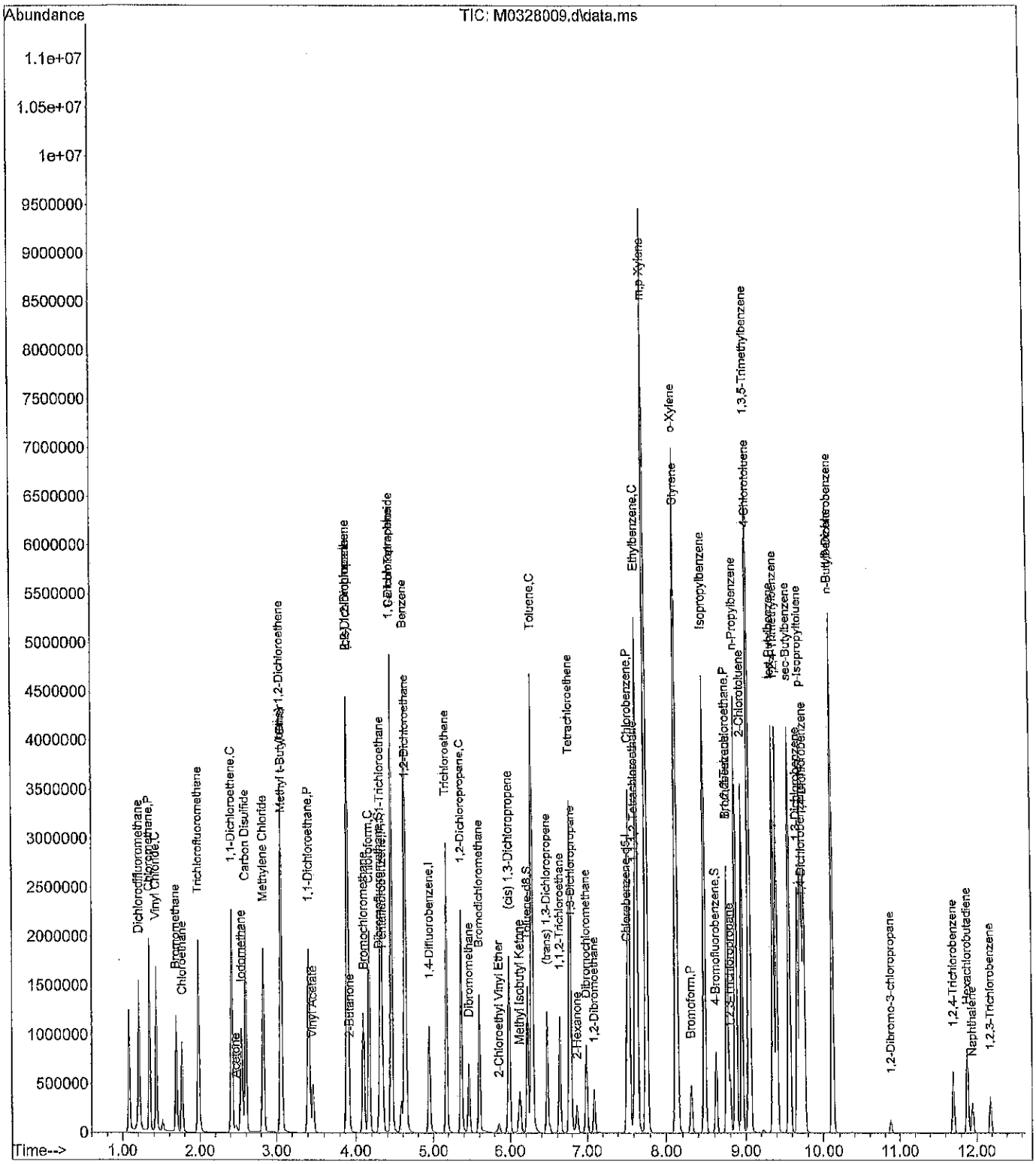
Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	292386	26.66	ppb		99
46) Chlorobenzene	7.543	112	1729622	25.68	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	576009	26.08	ppb		99
48) Ethylbenzene	7.646	91	3585151	26.38	ppb		99
49) m,p-Xylene	7.756	91	5434085	53.13	ppb		99
50) o-Xylene	8.128	91	2466541	26.02	ppb		99
51) Styrene	8.140	104	1887824	27.11	ppb		100
52) Bromoform	8.311	173	232242	26.97	ppb		99
53) Isopropylbenzene	8.476	105	3134059	26.30	ppb		100
56) Bromobenzene	8.762	156	592396	27.65	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	278507	26.56	ppb		97
58) 1,2,3-Trichloropropane	8.799	75	221012	27.51	ppb	#	100
59) n-Propylbenzene	8.872	91	3571653	27.78	ppb		100
60) 2-Chlorotoluene	8.951	126	685447	27.70	ppb		98
61) 4-Chlorotoluene	9.055	126	667612	27.22	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	2605407	27.30	ppb		99
63) tert-Butylbenzene	9.353	119	2039103	27.27	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	2384690	25.96	ppb		100
65) sec-Butylbenzene	9.567	105	2940858	26.70	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	1018598	25.04	ppb		99
67) p-Isopropyltoluene	9.713	119	2342593	25.92	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	1061821	24.81	ppb		99
69) 1,2-Dichlorobenzene	10.116	146	755745	24.41	ppb		100
70) n-Butylbenzene	10.109	91	2095716	24.39	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	35703	25.21	ppb		95
72) 1,2,4-Trichlorobenzene	11.707	180	210257	14.22	ppb		98
73) Hexachlorobutadiene	11.883	225	183636	12.77	ppb		99
74) Naphthalene	11.944	128	250957	14.31	ppb		100
75) 1,2,3-Trichlorobenzene	12.182	180	124247	12.52	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	522687	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	794397	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	648063	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	271326	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	239856	10.22	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.20%				
36) Toluene-d8	6.220	98	954439	10.21	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 102.10%				
54) 4-Bromofluorobenzene	8.622	95	292946	9.86	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	2263976	55.05	ppb		99
3) Chloromethane	1.343	50	3189613	51.05	ppb		100
4) Vinyl Chloride	1.428	62	2726670	53.16	ppb		99
5) Bromomethane	1.690	96	1188547	49.85	ppb		99
6) Chloroethane	1.769	64	1341140	49.70	ppb		99
7) Trichlorofluoromethane	1.977	101	2822826	50.31	ppb		100
8) 1,1-Dichloroethene	2.416	61	3002296	50.83	ppb		98
9) Acetone	2.477	43	169002	48.45	ppb		98
10) Iodomethane	2.538	142	2055765	49.63	ppb		97
11) Carbon Disulfide	2.592	76	4931028	52.87	ppb		100
12) Methylene Chloride	2.824	49	2461328	47.97	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	3034587	51.85	ppb		99
14) Methyl t-Butyl Ether	3.068	73	1954424	51.50	ppb		99
15) 1,1-Dichloroethane	3.409	63	3499793	51.39	ppb		99
16) Vinyl Acetate	3.464	43	1988880	50.94	ppb		99
17) 2,2-Dichloropropane	3.897	77	2173704	48.82	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	3306469	52.65	ppb		100
19) 2-Butanone	3.921	43	294527	47.30	ppb		98
20) Bromochloromethane	4.098	130	687090	51.81	ppb		98
21) Chloroform	4.165	83	2720414	51.07	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	2654495	50.52	ppb	#	58
24) Carbon Tetrachloride	4.458	117	2489450	50.96	ppb		100
25) 1,1-Dichloropropene	4.458	75	2319305	51.68	ppb		99
26) Benzene	4.629	78	6103832	52.13	ppb		98
27) 1,2-Dichloroethane	4.641	62	1656157	50.81	ppb		99
29) Trichloroethene	5.171	130	1726990	50.82	ppb		99
30) 1,2-Dichloropropane	5.360	63	1670462	52.23	ppb		99
31) Dibromomethane	5.464	174	532261	51.43	ppb		98
32) Bromodichloromethane	5.598	83	1679673	53.15	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	102169	125.64	ppb	#	89
34) (cis) 1,3-Dichloropropene	5.982	75	1826617	54.67	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	644949	55.71	ppb		98
37) Toluene	6.281	91	6709086	51.79	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	1239067	54.28	ppb		98
40) 1,1,2-Trichloroethane	6.634	97	674955	49.75	ppb		97
41) Tetrachloroethene	6.768	166	1764560	49.48	ppb		99
42) 1,3-Dichloropropane	6.787	76	1220959	51.11	ppb		99
43) 2-Hexanone	6.866	43	420528	52.83	ppb		98
44) Dibromochloromethane	6.988	129	950233	53.68	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

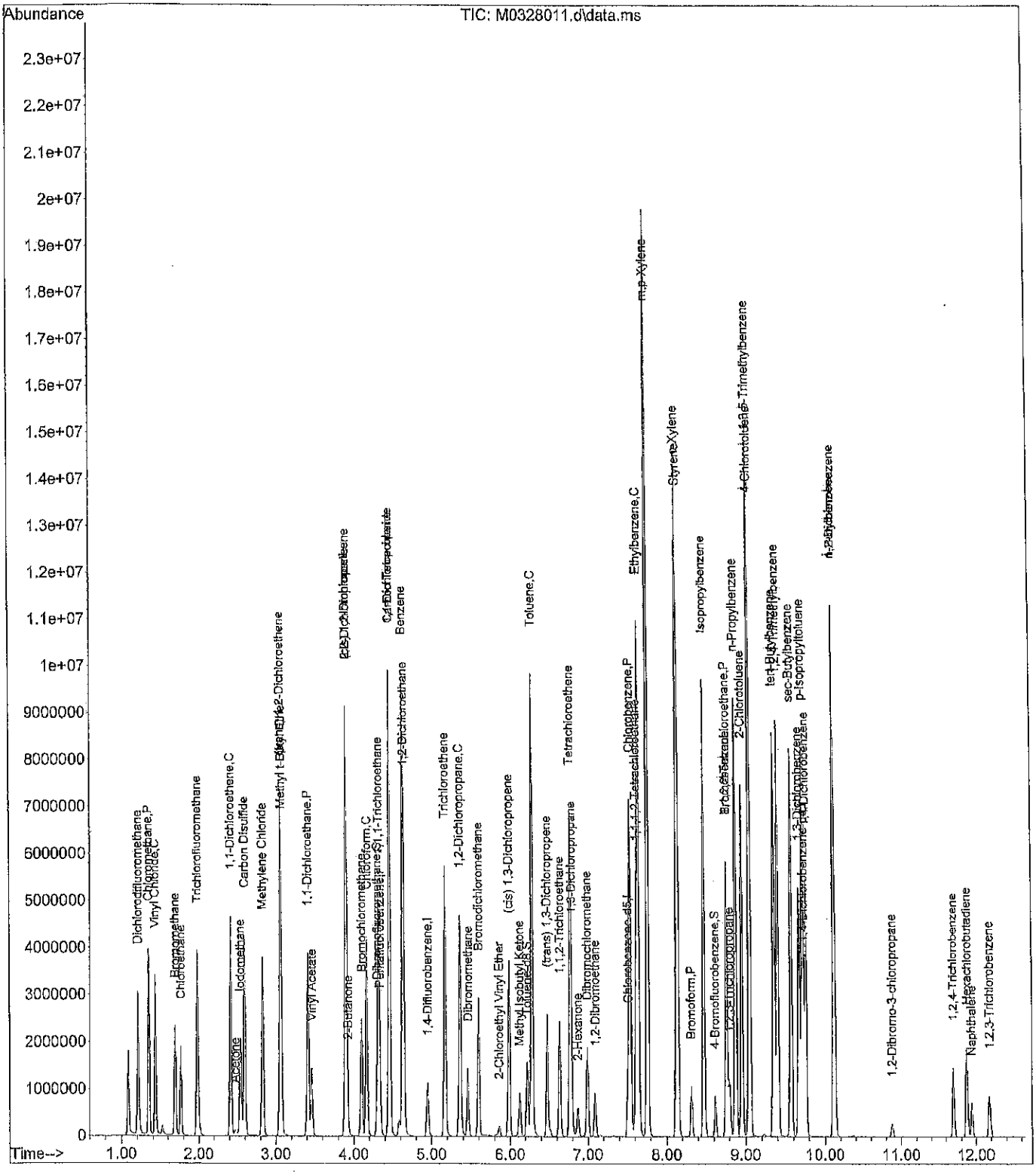
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	599789	51.27	ppb		100
46) Chlorobenzene	7.543	112	3639368	50.66	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.622	133	1226756	52.08	ppb		99
48) Ethylbenzene	7.646	91	7483755	51.62	ppb		99
49) m,p-Xylene	7.756	91	11469508	105.12	ppb		99
50) o-Xylene	8.128	91	5194099	51.37	ppb		99
51) Styrene	8.140	104	4005725	53.92	ppb		100
52) Bromoform	8.311	173	511778	55.72	ppb		97
53) Isopropylbenzene	8.475	105	6542524	51.46	ppb		100
56) Bromobenzene	8.762	156	1232656	53.64	ppb		100
57) 1,1,2,2-Tetrachloroethane	8.762	83	621739	55.28	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	462707	53.70	ppb	#	100
59) n-Propylbenzene	8.872	91	7452772	54.05	ppb		99
60) 2-Chlorotoluene	8.951	126	1400536	52.77	ppb		98
61) 4-Chlorotoluene	9.055	126	1411549	53.66	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	5458502	53.32	ppb		100
63) tert-Butylbenzene	9.353	119	4243887	52.91	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	5034056	51.09	ppb		100
65) sec-Butylbenzene	9.567	105	6127669	51.87	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	2161176	49.54	ppb		99
67) p-Isopropyltoluene	9.713	119	4907139	50.62	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	2245473	48.92	ppb		98
69) 1,2-Dichlorobenzene	10.115	146	1619215	48.77	ppb		100
70) n-Butylbenzene	10.115	91	4472832	48.54	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.883	157	75602	49.77	ppb		94
72) 1,2,4-Trichlorobenzene	11.700	180	482632	30.43	ppb		99
73) Hexachlorobutadiene	11.883	225	393787	25.53	ppb		98
74) Naphthalene	11.944	128	596197	31.03	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	286773	26.78	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	510461	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	773794	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	619866	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	260824	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	233640	10.05	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.50%			
36) Toluene-d8	6.220	98	922244	10.11	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 101.10%			
54) 4-Bromofluorobenzene	8.622	95	278743	10.13	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 101.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	329413	8.41	ppb	100
3) Chloromethane	1.343	50	597280	9.87	ppb	100
4) Vinyl Chloride	1.428	62	501584	9.84	ppb	100
5) Bromomethane	1.690	96	230195	9.50	ppb	98
6) Chloroethane	1.769	64	257346	9.62	ppb	99
7) Trichlorofluoromethane	1.977	101	559983	10.20	ppb	99
8) 1,1-Dichloroethene	2.416	61	639672	10.90	ppb	100
9) Acetone	2.483	43	36530	10.23	ppb	99
10) Iodomethane	2.538	142	373007	9.48	ppb	99
11) Carbon Disulfide	2.592	76	935588	10.03	ppb	100
12) Methylene Chloride	2.824	49	504778	10.00	ppb	99
13) (trans) 1,2-Dichloroet...	3.056	61	595161	10.07	ppb	99
14) Methyl t-Butyl Ether	3.068	73	395430	10.62	ppb	100
15) 1,1-Dichloroethane	3.409	63	704461	10.46	ppb	99
16) Vinyl Acetate	3.464	43	172935	6.08	ppb	100
17) 2,2-Dichloropropane	3.897	77	408962	9.51	ppb	100
18) (cis) 1,2-Dichloroethene	3.897	61	638476	10.27	ppb	100
19) 2-Butanone	3.921	43	58497	9.47	ppb	98
20) Bromochloromethane	4.098	130	139022	10.67	ppb	98
21) Chloroform	4.165	83	549665	10.33	ppb	99
22) 1,1,1-Trichloroethane	4.318	97	536813	10.46	ppb	95
24) Carbon Tetrachloride	4.458	117	499537	10.42	ppb	97
25) 1,1-Dichloropropene	4.452	75	448750	10.09	ppb	99
26) Benzene	4.629	78	1210361	10.35	ppb	100
27) 1,2-Dichloroethane	4.641	62	336423	10.39	ppb	99
29) Trichloroethene	5.171	130	378291	11.08	ppb	99
30) 1,2-Dichloropropane	5.360	63	326363	10.48	ppb	99
31) Dibromomethane	5.464	174	111837	11.18	ppb	99
32) Bromodichloromethane	5.598	83	338886	10.94	ppb	98
33) 2-Chloroethyl Vinyl Ether	5.860	63	15917	9.55	ppb	99
34) (cis) 1,3-Dichloropropene	5.982	75	343393	10.79	ppb	99
35) Methyl Isobutyl Ketone	6.122	43	110853	9.73	ppb	98
37) Toluene	6.281	91	1303383	10.35	ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	231090	10.59	ppb	100
40) 1,1,2-Trichloroethane	6.634	97	131800	10.05	ppb	99
41) Tetrachloroethene	6.769	166	351520	10.39	ppb	99
42) 1,3-Dichloropropane	6.787	76	240647	10.55	ppb	99
43) 2-Hexanone	6.866	43	73055	9.33	ppb	100
44) Dibromochloromethane	6.988	129	187880	11.08	ppb	98

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration

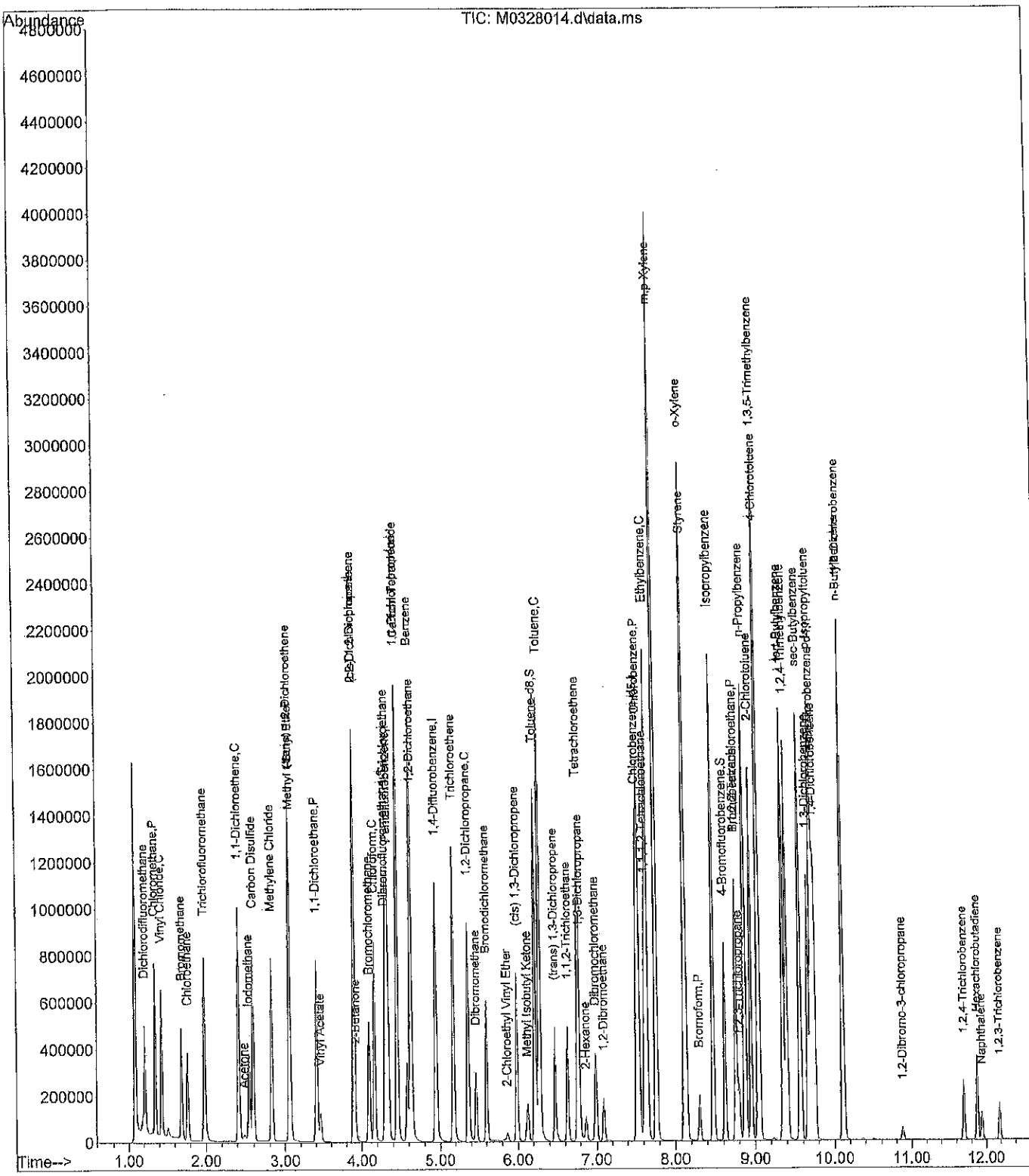
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	1,2-Dibromoethane	7.092	107	121746	10.62	ppb		99
46)	Chlorobenzene	7.543	112	777358	11.26	ppb		99
47)	1,1,1,2-Tetrachloroethane	7.616	133	235590	10.59	ppb		99
48)	Ethylbenzene	7.646	91	1429843	10.55	ppb		100
49)	m,p-Xylene	7.756	91	2249857	22.19	ppb		99
50)	o-Xylene	8.128	91	1087120	11.73	ppb		100
51)	Styrene	8.140	104	755347	10.94	ppb		100
52)	Bromoform	8.311	173	92427	10.74	ppb		98
53)	Isopropylbenzene	8.475	105	1357068	11.74	ppb		99
56)	Bromobenzene	8.762	156	244612	10.36	ppb		97
57)	1,1,2,2-Tetrachloroethane	8.762	83	109511	9.58	ppb		96
58)	1,2,3-Trichloropropane	8.799	75	94450	10.47	ppb	#	100
59)	n-Propylbenzene	8.872	91	1568963	11.28	ppb		99
60)	2-Chlorotoluene	8.951	126	303671	11.33	ppb		100
61)	4-Chlorotoluene	9.055	126	300275	11.41	ppb		99
62)	1,3,5-Trimethylbenzene	9.042	105	1039946	10.55	ppb		99
63)	tert-Butylbenzene	9.353	119	902330	11.62	ppb		99
64)	1,2,4-Trimethylbenzene	9.402	105	957567	10.48	ppb		99
65)	sec-Butylbenzene	9.567	105	1290528	11.52	ppb		99
66)	1,3-Dichlorobenzene	9.670	146	459444	11.27	ppb		99
67)	p-Isopropyltoluene	9.713	119	1006766	11.42	ppb		99
68)	1,4-Dichlorobenzene	9.756	146	433737	10.18	ppb		100
69)	1,2-Dichlorobenzene	10.115	146	343625	11.62	ppb		98
70)	n-Butylbenzene	10.109	91	840590	10.44	ppb		99
71)	1,2-Dibromo-3-chloropr...	10.884	157	14660	11.24	ppb		97
72)	1,2,4-Trichlorobenzene	11.707	180	86555	10.60	ppb		98
73)	Hexachlorobutadiene	11.883	225	75185	9.84	ppb		98
74)	Naphthalene	11.944	128	98546	10.16	ppb		99
75)	1,2,3-Trichlorobenzene	12.182	180	52321	9.87	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	10.000	10.000	0.0	120	0.00
2		Dichlorodifluoromethane	10.000	6.849	31.5#	86	0.00
3	P	Chloromethane	10.000	8.668	13.3	108	0.00
4	C	Vinyl Chloride	10.000	8.519	14.8#	103	0.00
5		Bromomethane	10.000	8.372	16.3	106	0.00
6		Chloroethane	10.000	8.238	17.6	102	0.00
7		Trichlorofluoromethane	10.000	8.549	14.5	103	0.00
8	C	1,1-Dichloroethene	10.000	9.246	7.5#	112	0.00
9		Acetone	10.000	8.227	17.7	98	0.00
10		Iodomethane	10.000	8.324	16.8	101	0.00
11		Carbon Disulfide	10.000	9.243	7.6	112	0.00
12		Methylene Chloride	10.000	9.032	9.7	114	0.00
13		(trans) 1,2-Dichloroethene	10.000	9.275	7.2	112	0.00
14		Methyl t-Butyl Ether	10.000	8.181	18.2	100	0.00
15	P	1,1-Dichloroethane	10.000	9.186	8.1	111	0.00
16		Vinyl Acetate	10.000	10.299	-3.0	133	0.00
17		2,2-Dichloropropane	10.000	9.093	9.1	109	0.00
18		(cis) 1,2-Dichloroethene	10.000	8.962	10.4	108	0.00
19		2-Butanone	10.000	8.249	17.5	103	0.00
20		Bromochloromethane	10.000	9.341	6.6	111	0.00
21	C	Chloroform	10.000	8.673	13.3#	106	0.00
22		1,1,1-Trichloroethane	10.000	8.737	12.6	105	0.00
23	S	Dibromofluoromethane	10.000	7.705	22.9#	92	0.00
24		Carbon Tetrachloride	10.000	8.988	10.1	110	0.00
25		1,1-Dichloropropene	10.000	8.987	10.1	110	0.00
26		Benzene	10.000	9.158	8.4	111	0.00
27		1,2-Dichloroethane	10.000	8.086	19.1	97	0.00
28	I	1,4-Difluorobenzene	10.000	10.000	0.0	111	0.00
29		Trichloroethene	10.000	10.117	-1.2	115	0.00
30	C	1,2-Dichloropropane	10.000	9.820	1.8#	111	0.00
31		Dibromomethane	10.000	10.293	-2.9	115	0.00
32		Bromodichloromethane	10.000	9.439	5.6	106	0.00
33		2-Chloroethyl Vinyl Ether	10.000	2.605	73.9#	32	0.00
34		(cis) 1,3-Dichloropropene	10.000	9.734	2.7	107	0.00
35		Methyl Isobutyl Ketone	10.000	8.488	15.1	100	0.00
36	S	Toluene-d8	10.000	9.613	3.9	107	0.00
37	C	Toluene	10.000	9.764	2.4#	113	0.00
38	I	Chlorobenzene-d5	10.000	10.000	0.0	106	0.00
39		(trans) 1,3-Dichloropropene	10.000	10.087	-0.9	104	0.00
40		1,1,2-Trichloroethane	10.000	9.618	3.8	108	0.00
41		Tetrachloroethene	10.000	11.159	-11.6	121	0.00
42		1,3-Dichloropropane	10.000	9.878	1.2	104	0.00
43		2-Hexanone	10.000	8.662	13.4	99	0.00
44		Dibromochloromethane	10.000	10.182	-1.8	108	0.00
45		1,2-Dibromoethane	10.000	9.997	0.0	107	0.00
46	P	Chlorobenzene	10.000	10.517	-5.2	115	0.00
47		1,1,1,2-Tetrachloroethane	10.000	10.719	-7.2	113	0.00
48	C	Ethylbenzene	10.000	10.595	-6.0#	112	0.00

Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49		m,p-Xylene	20.000	21.453	-7.3	112	0.00
50		o-Xylene	10.000	10.554	-5.5	111	0.00
51		Styrene	10.000	10.906	-9.1	112	0.00
52	P	Bromoform	10.000	10.642	-6.4	113	0.00
53		Isopropylbenzene	10.000	11.063	-10.6	115	0.00
54	S	4-Bromofluorobenzene	10.000	9.373	6.3	98	0.00
55	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	106	0.00
56		Bromobenzene	10.000	10.637	-6.4	116	0.00
57	P	1,1,2,2-Tetrachloroethane	10.000	9.351	6.5	105	0.00
58		1,2,3-Trichloropropane	10.000	9.110	8.9	99	0.00
59		n-Propylbenzene	10.000	10.787	-7.9	114	0.00
60		2-Chlorotoluene	10.000	11.018	-10.2	117	0.00
61		4-Chlorotoluene	10.000	11.023	-10.2	116	0.00
62		1,3,5-Trimethylbenzene	10.000	11.202	-12.0	115	0.00
63		tert-Butylbenzene	10.000	11.476	-14.8	116	0.00
64		1,2,4-Trimethylbenzene	10.000	11.221	-12.2	116	0.00
65		sec-Butylbenzene	10.000	11.460	-14.6	117	0.00
66		1,3-Dichlorobenzene	10.000	10.934	-9.3	117	0.00
67		p-Isopropyltoluene	10.000	11.592	-15.9	119	0.00
68		1,4-Dichlorobenzene	10.000	10.759	-7.6	116	0.00
69		1,2-Dichlorobenzene	10.000	10.945	-9.5	116	0.00
70		n-Butylbenzene	10.000	11.489	-14.9	120	0.00
71		1,2-Dibromo-3-chloropropane	10.000	11.587	-15.9	122	0.00
72		1,2,4-Trichlorobenzene	10.000	11.595	-16.0	123	0.00
73		Hexachlorobutadiene	10.000	13.092	-30.9#	144	0.00
74		Naphthalene	10.000	10.126	-1.3	109	0.00
75		1,2,3-Trichlorobenzene	10.000	10.002	-0.0	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	586461	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	844392	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	637433	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	260379	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	205778	7.71	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 77.10%			
36) Toluene-d8	6.220	98	956546	9.61	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.10%			
54) 4-Bromofluorobenzene	8.616	95	265221	9.37	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	308233	6.85	ppb	100
3) Chloromethane	1.343	50	602772	8.67	ppb	99
4) Vinyl Chloride	1.428	62	499070	8.52	ppb	99
5) Bromomethane	1.690	96	233049	8.37	ppb	99
6) Chloroethane	1.769	64	253087	8.24	ppb	100
7) Trichlorofluoromethane	1.977	101	539345	8.55	ppb	100
8) 1,1-Dichloroethene	2.416	61	623367	9.25	ppb	100
9) Acetone	2.477	43	34220	8.23	ppb	96
10) Iodomethane	2.538	142	374042	8.32	ppb	94
11) Carbon Disulfide	2.592	76	990845	9.24	ppb	100
12) Methylene Chloride	2.824	49	523929	9.03	ppb	100
13) (trans) 1,2-Dichloroet...	3.056	61	629597	9.27	ppb	99
14) Methyl t-Butyl Ether	3.068	73	349787	8.18	ppb	98
15) 1,1-Dichloroethane	3.409	63	710747	9.19	ppb	99
16) Vinyl Acetate	3.464	43	336829	10.30	ppb	99
17) 2,2-Dichloropropane	3.897	77	449198	9.09	ppb	100
18) (cis) 1,2-Dichloroethene	3.897	61	640306	8.96	ppb	100
19) 2-Butanone	3.921	43	58559	8.25	ppb	97
20) Bromochloromethane	4.098	130	139839	9.34	ppb	97
21) Chloroform	4.165	83	530285	8.67	ppb	100
22) 1,1,1-Trichloroethane	4.318	97	515080	8.74	ppb	98
24) Carbon Tetrachloride	4.458	117	495034	8.99	ppb	96
25) 1,1-Dichloropropene	4.452	75	459233	8.99	ppb	100
26) Benzene	4.629	78	1230387	9.16	ppb	99
27) 1,2-Dichloroethane	4.641	62	300860	8.09	ppb	100
29) Trichloroethene	5.171	130	376789	10.12	ppb	99
30) 1,2-Dichloropropane	5.360	63	333753	9.82	ppb	99
31) Dibromomethane	5.464	174	112342	10.29	ppb	100
32) Bromodichloromethane	5.598	83	319028	9.44	ppb	99
33) 2-Chloroethyl Vinyl Ether	5.860	63	4736	2.61	ppb	97
34) (cis) 1,3-Dichloropropene	5.982	75	338111	9.73	ppb	100
35) Methyl Isobutyl Ketone	6.122	43	105513	8.49	ppb	98
37) Toluene	6.281	91	1341880	9.76	ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	226360	10.09	ppb	99
40) 1,1,2-Trichloroethane	6.634	97	129774	9.62	ppb	99
41) Tetrachloroethene	6.768	166	388073	11.16	ppb	99
42) 1,3-Dichloropropane	6.787	76	231621	9.88	ppb	100
43) 2-Hexanone	6.866	43	69728	8.66	ppb	99
44) Dibromochloromethane	6.988	129	177471	10.18	ppb	99

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

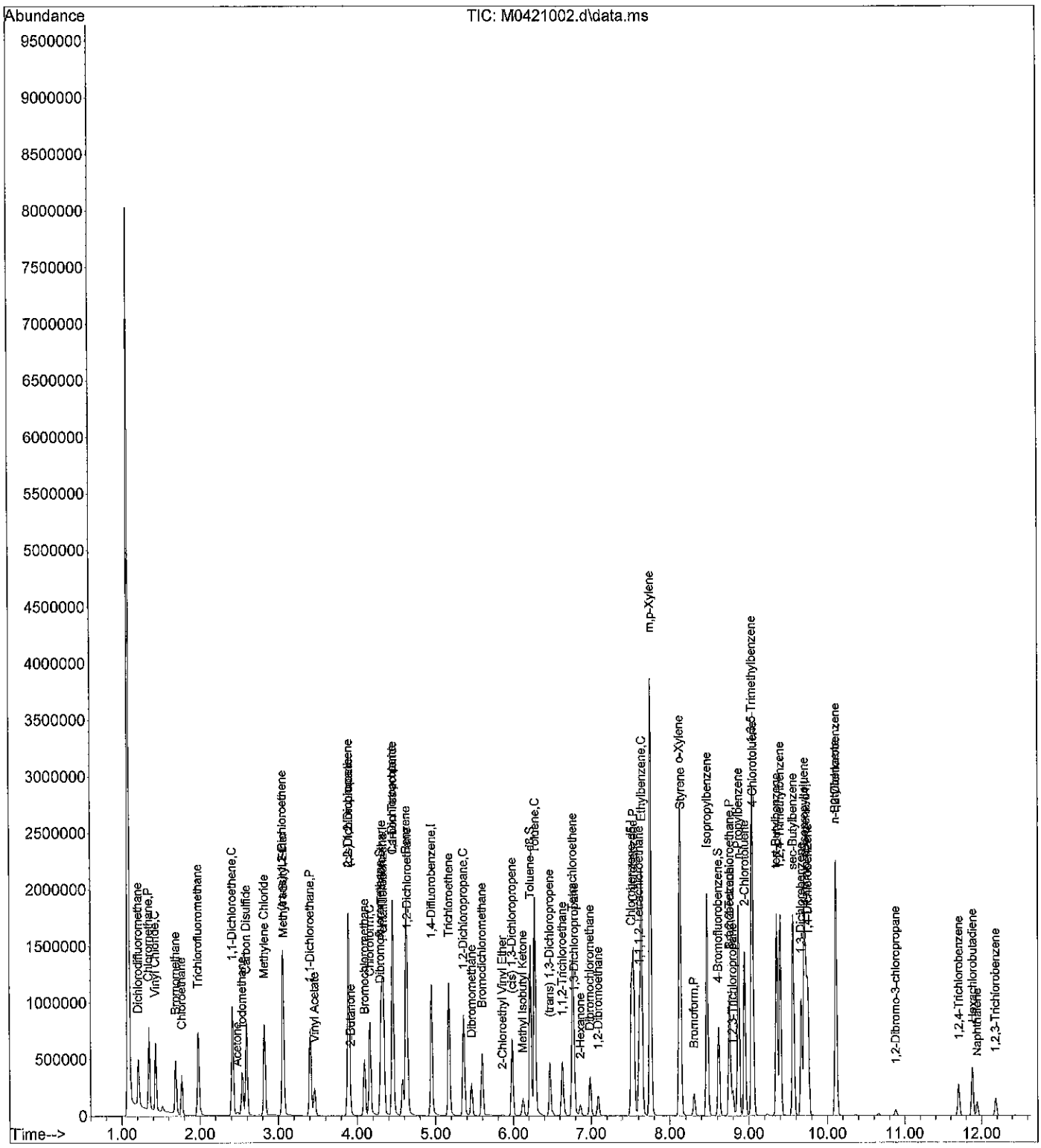
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	117902	10.00	ppb		98
46) Chlorobenzene	7.543	112	746417	10.52	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	245139	10.72	ppb		100
48) Ethylbenzene	7.646	91	1476598	10.59	ppb		99
49) m,p-Xylene	7.756	91	2237037	21.45	ppb		98
50) o-Xylene	8.128	91	1005535	10.55	ppb		99
51) Styrene	8.140	104	774608	10.91	ppb		100
52) Bromoform	8.311	173	94182	10.64	ppb		99
53) Isopropylbenzene	8.475	105	1315484	11.06	ppb		99
56) Bromobenzene	8.762	156	250598	10.64	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	106715	9.35	ppb		99
58) 1,2,3-Trichloropropane	8.799	75	82051	9.11	ppb	#	100
59) n-Propylbenzene	8.872	91	1498373	10.79	ppb		98
60) 2-Chlorotoluene	8.951	126	294900	11.02	ppb		99
61) 4-Chlorotoluene	9.055	126	289578	11.02	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	1101845	11.20	ppb		97
63) tert-Butylbenzene	9.353	119	889428	11.48	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	1023087	11.22	ppb		97
65) sec-Butylbenzene	9.567	105	1281111	11.46	ppb		98
66) 1,3-Dichlorobenzene	9.670	146	444978	10.93	ppb		99
67) p-Isopropyltoluene	9.713	119	1020550	11.59	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	457794	10.76	ppb		99
69) 1,2-Dichlorobenzene	10.115	146	323116	10.94	ppb		98
70) n-Butylbenzene	10.109	91	923261	11.49	ppb		98
71) 1,2-Dibromo-3-chloropr...	10.884	157	15090	11.59	ppb		93
72) 1,2,4-Trichlorobenzene	11.707	180	94502	11.59	ppb		99
73) Hexachlorobutadiene	11.883	225	99875	13.09	ppb		98
74) Naphthalene	11.944	128	98089	10.13	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	52955	10.00	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

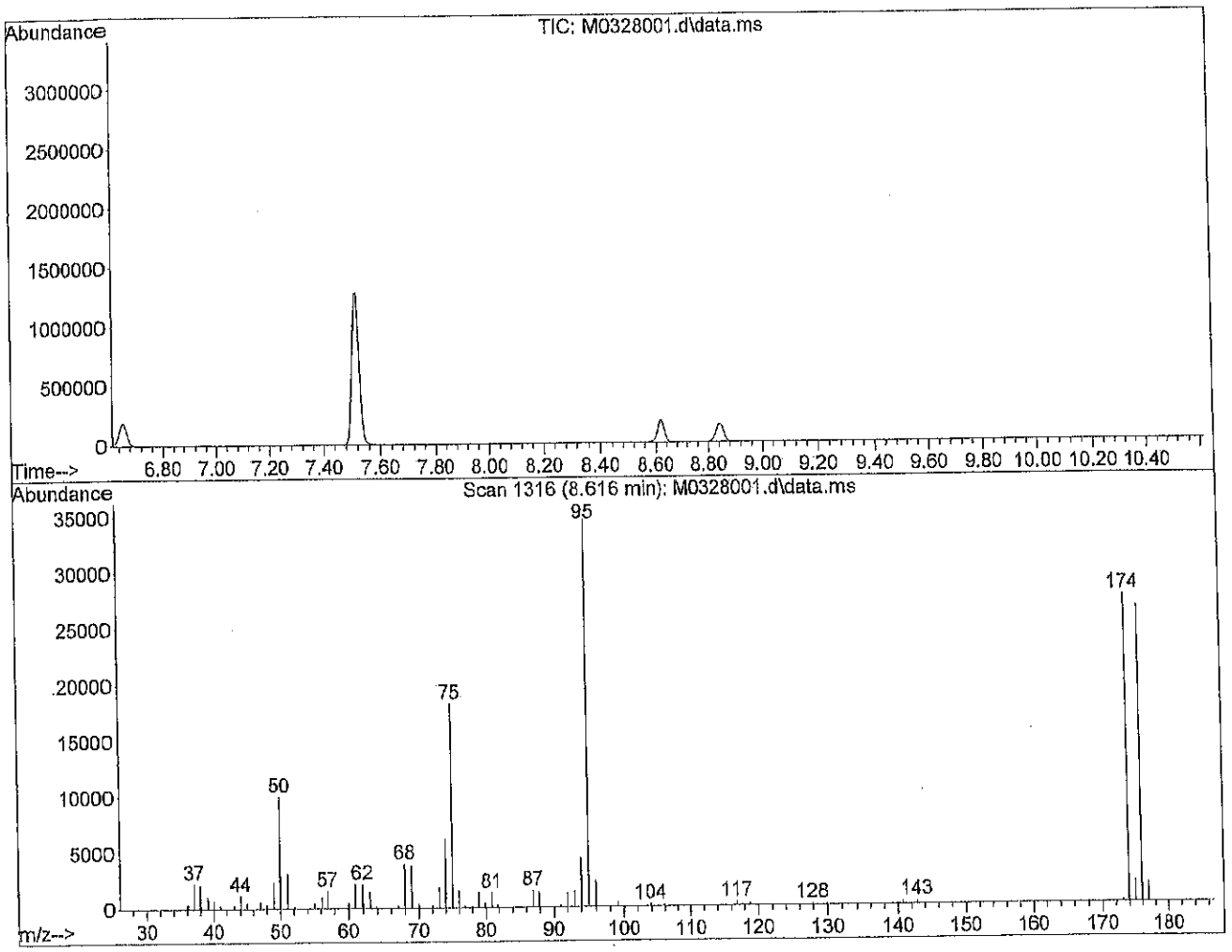
Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\M140328\Snapshot\
Data File : M0328001.d
Acq On : 28 Mar 2014 6:54 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140324W.M
Title :
Last Update : Mon Mar 24 11:06:36 2014



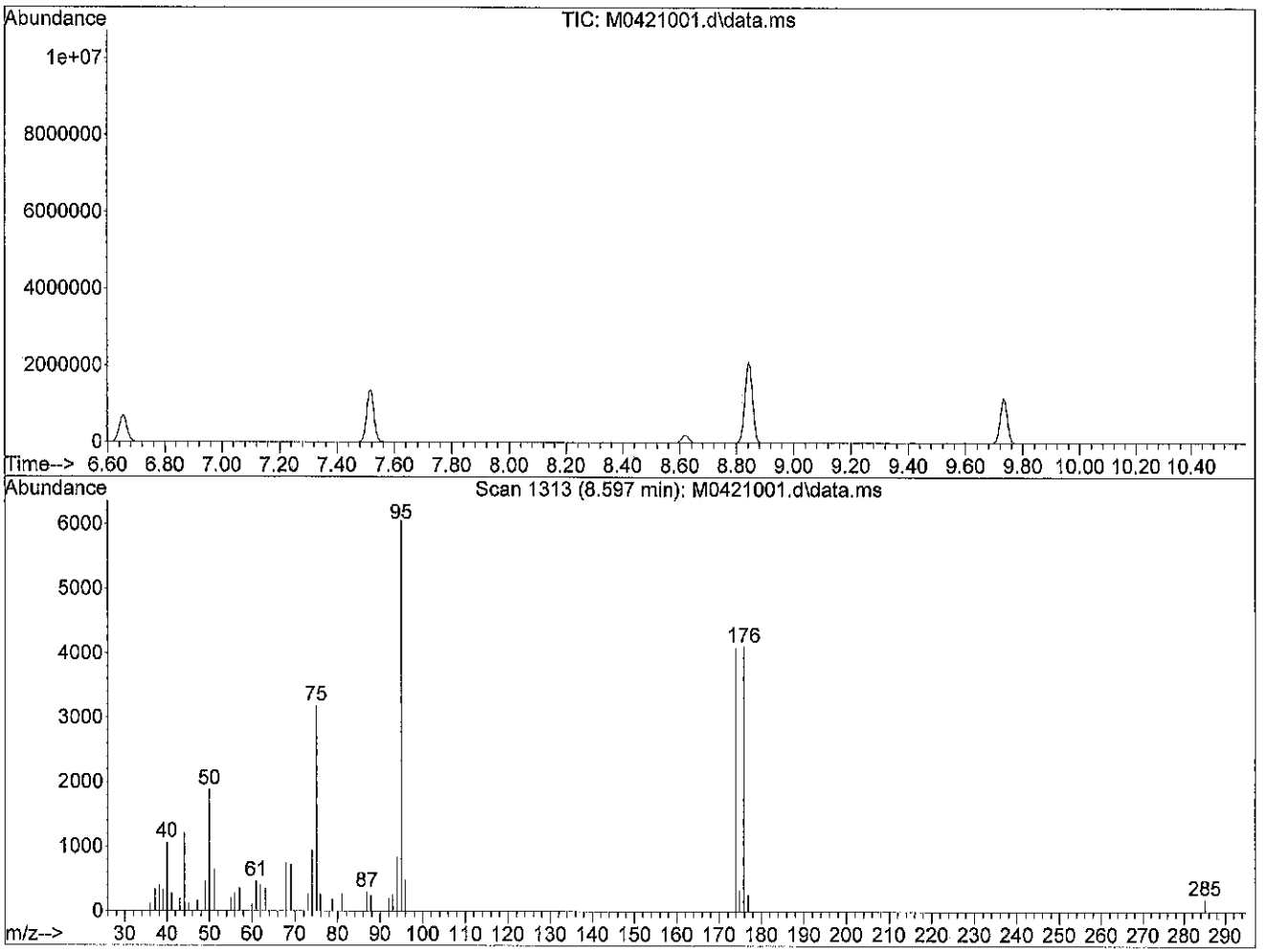
Spectrum Information: Scan 1316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	29.0	10030	PASS
75	95	30	80	52.9	18280	PASS
95	95	100	100	100.0	34536	PASS
96	95	5	9	6.6	2289	PASS
173	174	0.00	2	0.7	191	PASS
174	95	50	100	79.5	27456	PASS
175	174	5	9	7.0	1915	PASS
176	174	95	101	96.5	26504	PASS
177	176	5	9	6.6	1751	PASS

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421001.d
Acq On : 21 Apr 2014 7:37 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014



Spectrum Information: Scan 1313

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.1	1885	PASS
75	95	30	80	52.6	3186	PASS
95	95	100	100	100.0	6061	PASS
96	95	5	9	8.0	482	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	67.4	4083	PASS
175	174	5	9	8.0	328	PASS
176	174	95	101	100.6	4107	PASS
177	176	5	9	6.4	264	PASS

GC/MS QA-QC Check Report

Tune File : X:\VOLATILE\MORRIS\DATA\M140421\M0421001.d
Tune Time : 21 Apr 2014 7:37 am

Daily Calibration File : X:\VOLATILE\MORRIS\DATA\M140421\M0421002.d

586461 844392 637433

260379

File	Sample	Surrogate Recovery %			Internal Standard Responses		
M0421003.d							
	SB0421W1	80	95	91	583615	851796	638455
				246954			
M0421004.d							
	04-137-01c	82	95	92	577702	854037	650908
				257039			
M0421005.d							
	04-137-01d	82	95	93	582849	844413	648272
				251232			
M0421006.d							
	MB0421W1	83	96	92	575038	840158	651278
				255461			
M0421007.d							
	04-137-01b	84	96	93	572939	840580	643845
				248008			
M0421008.d							
	04-137-04b	83	96	91	574177	831399	623001
				240920			
M0421009.d							
	04-137-05b	83	96	92	569199	829772	634209
				247043			
M0421010.d							
	04-137-02b	83	96	94	573142	832280	636052
				249414			
M0421011.d							
	04-137-03b	84	95	92	571660	832648	640765
				251068			

(fails) - fails 12hr time check * - fails criteria

Created: Mon Apr 21 12:25:35 2014 Morris

Sequence Name: C:\msdchem\1\sequence\M140328.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140328\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0328001 M140324W 50ng bfb mass tune
2)	Sample 2	M0328002 M140324W blank
3)	Sample 3	M0328003 M140324W 0.20 PPB ICAL
4)	Sample 4	M0328004 M140324W 1.0 PPB ICAL
5)	Sample 5	M0328005 M140324W 2.0 PPB ICAL
6)	Sample 6	M0328006 M140324W 5.0 PPB ICAL
7)	Sample 7	M0328007 M140324W 10 PPB ICAL
8)	Sample 8	M0328008 M140324W BLANK
9)	Sample 9	M0328009 M140324W 25 PPB ICAL
10)	Sample 10	M0328010 M140324W BLANK
11)	Sample 11	M0328011 M140324W 50 PPB ICAL
12)	Sample 12	M0328012 M140324W BLANK
13)	Sample 13	M0328013 M140324W BLANK
14)	Sample 14	M0328014 M140324W ICV0328W1
15)	Sample 15	M0328015 M140324W BLANK
16)	Sample 16	M0328016 M140324W BLANK
17)	Sample 17	M0328017 M140324W BLANK
18)	Sample 18	M0328018 M140324W 03-202-01a 1:100 SCREEN
19)	Sample 19	M0328019 M140324W 03-202-02a 1:100 SCREEN
20)	Sample 20	M0328020 M140324W 03-202-03a 1:100 SCREEN
21)	Sample 21	M0328021 M140324W 03-202-04a 1:100 SCREEN
22)	Sample 22	M0328022 M140324W 03-206-04c 1:100 SCREEN
23)	Sample 23	M0328023 M140324W 03-206-08c 1:100 SCREEN
24)	Sample 24	M0328024 M140324W 03-206-12c 1:100 SCREEN
25)	Sample 25	M0328025 M140324W 03-206-16c 1:100 SCREEN
26)	Sample 26	M0328026 M140324W 03-207-01a 1:100 SCREEN
27)	Sample 27	M0328027 M140324W 03-207-02a 1:100 SCREEN
28)	Sample 28	M0328028 M140324W 03-207-03a 1:100 SCREEN
29)	Sample 29	M0328029 M140324W 03-207-04a 1:100 SCREEN
30)	Sample 30	M0328030 M140324W 03-207-05a 1:100 SCREEN
31)	Sample 31	M0328031 M140324W 03-207-06a 1:100 SCREEN
32)	Sample 32	M0328032 M140324W 03-207-07a 1:100 SCREEN
33)	Sample 33	M0328033 M140324W 03-207-08a 1:100 SCREEN
34)	Sample 34	M0328034 M140324W 03-207-09a 1:100 SCREEN

Sequence Name: C:\msdchem\1\sequence\M140421.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140421\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line			Sample Name/Misc Info
1)	Sample	1	M0421001 M140328W 50ng bfb mass tune
2)	Sample	2	M0421002 M140328W CCV0421W1
3)	Sample	3	M0421003 M140328W SB0421W1
4)	Sample	4	M0421004 M140328W 04-137-01c MS
5)	Sample	5	M0421005 M140328W 04-137-01d MSD
6)	Sample	6	M0421006 M140328W MB0421W1
7)	Sample	7	M0421007 M140328W 04-137-01b
8)	Sample	8	M0421008 M140328W 04-137-04b
9)	Sample	9	M0421009 M140328W 04-137-05b
10)	Sample	10	M0421010 M140328W 04-137-02b
11)	Sample	11	M0421011 M140328W 04-137-03b
12)	Sample	12	M0421012 M140328W 04-123-01b
13)	Sample	13	M0421013 M140328W 04-123-02b
14)	Sample	14	M0421014 M140328W 04-123-03b
15)	Sample	15	M0421015 M140328W 04-123-04b
16)	Sample	16	M0421016 M140328W 04-123-05b
17)	Sample	17	M0421017 M140328W 04-138-01b
18)	Sample	18	M0421018 M140328W 04-138-02b
19)	Sample	19	M0421019 M140328W 04-138-03b
20)	Sample	20	M0421020 M140328W 04-138-04b
21)	Sample	21	M0421021 M140328W 04-138-05b
22)	Sample	22	M0421022 M140328W 04-156-01b
23)	Sample	23	M0421023 M140328W 04-156-02b
24)	Sample	24	M0421024 M140328W 04-156-03b
25)	Sample	25	M0421025 M140328W 04-156-04b
26)	Sample	26	M0421026 M140328W 04-156-05b
27)	Sample	27	M0421027 M140328W 04-151-01a 1:100 SCREEN
28)	Sample	28	M0421028 M140328W 04-151-02a 1:100 SCREEN
29)	Sample	29	M0421029 M140328W 04-151-03a 1:100 SCREEN
30)	Sample	30	M0421030 M140328W 04-151-04a 1:100 SCREEN
31)	Sample	31	M0421031 M140328W 04-151-05a 1:100 SCREEN
32)	Sample	32	M0421032 M140328W 04-151-06a 1:100 SCREEN
33)	Sample	33	M0421033 M140328W 04-151-07a 1:100 SCREEN
34)	Sample	34	M0421034 M140328W 04-151-08a 1:100 SCREEN
35)	Sample	35	M0421035 M140328W 04-151-09a 1:100 SCREEN
36)	Sample	36	M0421036 M140328W 04-151-10a 1:100 SCREEN
37)	Sample	37	M0421037 M140328W 04-151-11a 1:100 SCREEN
38)	Sample	38	M0421038 M140328W 04-151-12a 1:100 SCREEN
39)	Sample	39	M0421039 M140328W 04-151-13a 1:100 SCREEN
40)	Sample	40	M0421040 M140328W 04-151-14a 1:100 SCREEN
41)	Sample	41	M0421041 M140328W 04-151-15a 1:100 SCREEN
42)	Sample	42	M0421042 M140328W 04-151-16a 1:100 SCREEN
43)	Sample	43	M0421043 M140328W 04-151-17a 1:100 SCREEN

Sequence Name: C:\msdchem\1\sequence\M140421.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)		Sample	44	M0421044	M140328W	04-151-18a 1:100 SCREEN
45)		Sample	45	M0421045	M140328W	04-151-19a 1:100 SCREEN
46)		Sample	46	M0421046	M140328W	04-151-20a 1:100 SCREEN
47)		Sample	47	M0421047	M140328W	04-151-21a 1:100 SCREEN
48)		Sample	48	M0421048	M140328W	04-151-22a 1:100 SCREEN
49)		Sample	49	M0421049	M140328W	04-151-23a 1:100 SCREEN
50)		Sample	50	M0421050	M140328W	04-151-24a 1:100 SCREEN
51)		Sample	51	M0421051	M140328W	04-151-25a 1:100 SCREEN
52)		Sample	52	M0421052	M140328W	04-151-26a 1:100 SCREEN
53)		Sample	53	M0421053	M140328W	04-151-27a 1:100 SCREEN
54)		Sample	54	M0421054	M140328W	04-151-28a 1:100 SCREEN
55)		Sample	55	M0421055	M140328W	04-151-29a 1:100 SCREEN

OnSite Environmental Inc.

WATER EXTRACTION LOG

Instrument Run #: M140421
Date: 4-21-14

Int. Std./Surr. Stock#: V3-125-12/V3-125-13
Matrix Spike Stock#: V3-125-5

# of Sample	Date	Sample I.D.	Volume	pH of Sample	Analyst	Miscellaneous
	4-21-14	MB042lW1	25mL	7	SD	
		SB042lW1		7		
1		04-123-016		2		
2		-026				
3		-036				
4		-046				
5		-056				
6		04-137-016				
		-01c MS				
		-01d MSD				
7		-026				
8		-036				
9		-046				
10		-056				
11		04-138-016				
12		-026				
13		-036				
14		-046				
15		-056				
16		04-156-016				
17		-026				
18		-036				
19		-046				
20		-056				
		SD 4-22-14				

TITLE **PROJECT**

Continued from page 114

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
VOC ADD'S	V3-115-1							10-1-13	SD
		M-8260-ADD-10X Method 8260 Additions 2.0 mg/mL in MeOH Lot: 213091338 Exp: Jan 25,2014		1 mL					discarded SD 11-19-13
250 ppm ICAL	V3-115-2	V3-114-4	2000 ppm	25 µL	1 mL	250 ppm	MeOH	10-1-13	SD
		V3-114-16							
		V3-115-1							
50 ppm ICAL	V3-115-3	V3-115-2	250 ppm	200 µL	1mL	50 ppm	MeOH	10-1-13	SD
10 ppm ICAL	V3-115-4	V3-115-3	50 ppm	200 µL	1mL	10 ppm	MeOH	10-1-13	SD
5 ppm ICAL	V3-115-5	V3-115-3	50 ppm	100 µL	1mL	5 ppm	MeOH	10-1-13	SD
1 ppm ICAL	V3-115-6	V3-115-3	50 ppm	20 µL	1mL	1 ppm	MeOH	10-1-13	SD
50 ppm SS (bare)	V3-115-7	V3-113-16	2000 ppm	25 µL	1mL	50 ppm	MeOH	10-2-13	SD see SD 12-2
50 ppm ICV	V3-115-8	V3-101-7	2000 ppm	25 µL	1mL	50 ppm	MeOH	10-2-13	SD discard SD 11-19
		V3-101-8							
		V3-101-9							
50 ppm CCV	V3-115-9	V3-114-4	2000 ppm	25 µL	1mL	50 ppm	MeOH	10-2-13	SD discard SD 11-22
		V3-114-16							
		V3-115-1							
		M-8240/60-SS-10X Surrogate Standard VOA Mix 2.0 mg/mL in MeOH Lot: 212051380 Exp: Jun 1,2022		1 mL					
2000 ppm SS	V3-115-10	V3-113-16 + V3-115-10	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-7-13	SD spoke SD 11-14-13
250 ppm SS	V3-115-11	V3-114-14	2000 ppm	500 µL	4mL	250 ppm	MeOH	10-8-13	SD discard SD 11-19-13
50 ppm SS	V3-115-12	V3-115-10	2000 ppm	100 µL	4mL	50 ppm	MeOH	10-8-13	discard SD 11-19-13
WDUP 50 ppm SS	V3-115-13	V3-115-14	2000 ppm	100 µL	4mL	50 ppm	MeOH	10-8-13	discard SD 11-19-13
50 ppm ICV	V3-115-14	V3-115-14	2000 ppm	100 µL	4mL	50 ppm	MeOH	10-8-13	discard SD 11-19-13
.05 ppm ICAL	V3-115-15	V3-115-6	1 ppm	.050 mL	1 mL	.050 ppm	MeOH	10-9-13	discard SD 11-18-13
50 ppm CCV	V3-115-16	V3-114-4	2000 ppm	25 µL	1mL	50 ppm	MeOH	10-10-13	SD
		V3-114-16							discard SD 10-22
		V3-115-1							
		CLP-003-R-10X Purgeable Organic Matrix Spiking Soln. 2.5 mg/mL in MeOH Lot: 212011385 Exp: Feb 6,2022		1 mL					
2500 ppm MS	V3-115-17							10-10-13	SD

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FOR LABORATORY USE ONLY

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

STORAGE Freeze (<-10° C)

2 Danger

5 comps.

HIGHLY FLAMMABLE

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FOR LABORATORY USE ONLY

STORAGE Ambient

4 comps.

HIGHLY FLAMMABLE

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FOR LABORATORY USE ONLY

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

STORAGE Freeze (<-10° C)

2 Danger

5 comps.

HIGHLY FLAMMABLE

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SIGNATURE

DISCLOSED TO AND UNDERSTOOD BY | DATE | PROPRIETARY INFORMATION

TITLE **PROJECT**

Continued from page 120

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
2000 ppm IS	V3-121-1							2-3-14	SD
250 ppm IS	V3-121-2	V3-120-8 + V3-121-1	2000 ppm	500 µL	4 mL	250 ppb	MeOH	2-3-14	SD
50 ppm IS	V3-121-3	V3-115-19	2500 ppm	20 mL	1 mL	50 ppm	MeOH	2-3-14	SD
2000 ppm SS	V3-121-4							2-4-14	SD
Albert 250 ppm SS	V3-121-13 + V3-121-4	2000 ppm	500 µL	4 mL	~~1 mL~~ 250 ppm SD 2-4-14	~~250 ppm~~ SD 2-4-14	MeOH	2-4-14	SD
Albert 250 ppm SS	V3-121-5	V3-120-13 + V3-121-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-4-14	SD
~~VOC Liquids~~	V3-121-6							2-5-14	SD discarded
VOC ADD IS	V3-121-7							2-5-14	SD discarded
VOC GASES	V3-121-8							2-5-14	SD discarded
250 ppm ICAL	V3-121-9	V3-121-6 + V3-121-7 + V3-121-8	2000 ppm	125 µL	1 mL	250 ppm	MeOH	2-5-14	SD
50 ppm ICAL	V3-121-10	V3-121-9	250 ppm	200 µL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ICAL	V3-121-11	V3-121-10	50 ppm	200 µL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ICAL	V3-121-12	V3-121-10	50 ppm	100 µL	1 mL	5 ppm	MeOH	2-5-14	SD

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287
Exp: Nov 19,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 212051380
Exp: Jun 1,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502A-R3-10X
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619
Exp: Aug 30,2015
1 mL
55 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 213121006
Exp: Apr 3,2014
1 mL
8 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Califor to cause cancer and birth defects or ot reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424
Exp: May 2,2016
1 mL
6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

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SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

TITLE

PROJECT

Continued from page 121

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
~~1 ppm ICAL~~	~~V3-122-1~~	~~V3-121-6~~	~~50 ppm~~	~~20 mL~~	~~1 mL~~	~~1 ppm~~	~~MeOH~~	~~2-5-14~~	~~SD~~
~~2 ppm ICAL~~	~~V3-122-2~~	~~V3-121-7~~	~~1 ppm~~	~~50 mL~~	~~0.5 mL~~	~~0.5 ppm~~	~~MeOH~~	~~2-5-14~~	~~SD~~
ICV VOC LIQUIDS	V3-122-3								
ICV VOC ADDS	V3-122-4								
ICV VOC GASES	V3-122-5								
50 ppm ICV	V3-122-6	V3-122-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-5-14	SD
		V3-122-4	1	1	1	1	1	1	1
		V3-122-5	1	1	1	1	1	1	1
100 ppm ACRYL/DCB	V3-122-7	V3-117-11	100 ppm	500 mL	1 mL	100 ppm	MeOH	2-5-14	SD
		V3-117-12	100 ppm	500 mL					
50 ppm ACRYL/DCB	V3-122-8	~~V3-122-7~~ V3-122-11	100 ppm	500 mL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ACRYL/DCB	V3-122-9	V3-122-8	50 ppm	200 mL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ACRYL/DCB	V3-122-10	V3-122-8	50 ppm	100 mL	1 mL	5 ppm	MeOH	2-5-14	SD
50 ppm CCV	V3-122-11	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-7-14	SD
		V3-121-7	2000 ppm	25 mL	1	1	1	1	1
		V3-121-8	2000 ppm	25 mL	1	1	1	1	1
~~250 ppm IS~~	~~V3-122-12~~	~~V3-121-1~~	~~2000 ppm~~	~~500 mL~~	~~1 mL~~	~~250 ppm~~	~~MeOH~~	~~2-18-14~~	~~SD~~
~~250 ppm SS~~	~~V3-122-13~~	~~V3-121-1~~	~~2000 ppm~~	~~500 mL~~	~~1 mL~~	~~250 ppm~~	~~MeOH~~	~~2-18-14~~	~~SD~~
~~3000 ppm IS~~	~~V3-122-14~~								
250 ppm IS	V3-122-15	V3-121-1	2000 ppm	500 mL	1 mL	250 ppm	MeOH	2-24-14	SD
		V3-122-14	1	1	1	1	1	1	1

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AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 213091216 55 comps.
Exp: Sep 19,2016 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214011413 8 comps.
Exp: Jun 3,2014 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Califor to cause cancer and birth defects or oth reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502B-10X 1 mL
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213071142 6 comps.
Exp: Jul 17,2016 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE PROPRIETARY INFORMATION

Continued from page 122

ANALYTES	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
50 ppm SS (tune)	V3-123-1	V3-121-4	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-26-14	SD
50 ppm CCV	V3-123-2	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-27-14	SD
		V3-121-7							
		V3-121-8							
waldo 50 ppm IS	V3-123-3	V3-122-14	2000 ppm	100 µL	4 mL	50 ppm	MeOH	2-27-14	EEM
waldo 50 ppm SS	V3-123-4	V3-121-4	2000 ppm	100 µL	4 mL	50 ppm	MeOH	2-27-14	EEM
~~2000 ppm SS~~	V3-123-5							2-28-14	SD
								spent 3-2-14	SD
Albert 250 ppm SS	V3-123-6	V3-121-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-28-14	SD
		V3-123-5							
	V3-123-7	V3-122-14	2000 ppm	625 µL	25 mL	50 ppm	MeOH	3-6-14	SD
Morris 50 ppm IS	V3-123-8							3-10-14	SD
~~2000 ppm IS~~								spent 3-12-14	SD
Albert 250 ppm IS	V3-123-9	V3-122-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
		V3-123-8							
Albert 250 ppm SS	V3-123-10	V3-123-5	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
50 ppm CCV	V3-123-11	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-10-14	SD
		V3-121-7							
		V3-121-8							
~~50 ppm CCV~~	V3-123-12	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-13-14	SD
		V3-121-7							
		V3-121-8							
VOC GASES	V3-123-13							3-13-14	SD
50 ppm CCV	V3-123-14	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-13-14	SD
		V3-121-7							
		V3-123-13							

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SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

V3 - 124
BOOK PAGE

TITLE

PROJECT

Continued from page 123	Lab ID	Stock ID	Stock conc.	Stock Vol	Final Vol	Final conc.	Solvent	Date	Initials
Analyte									
250 ppm IS/SS	V3-124-1	V3-123-8	2000 ppm	250 µL	2 mL	250 ppm	MeOH	3-14-14	SD
		V3-123-5	"	250 µL	"	"	"	"	"
~~50 ppm MS~~	~~V3-124-2~~	~~V3-115-7~~	~~2500 ppm~~	~~200 µL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~
50 ppm ICV	V3-124-3	V3-123-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-19-14	SD
		V3-123-4							
		V3-123-5							
VOC Liquids	V3-124-4							3-19-14	SD
VOC ADD's	V3-124-5							3-19-14	SD
250 ppm ICAL	V3-124-6	V3-123-3	2000 ppm	125 mL	1 mL	250 ppm	MeOH	3-19-14	SD
		V3-124-4							
		V3-124-5							
50 ppm ICAL	V3-124-7	V3-124-6	250 ppm	200	1 mL	50 ppm	MeOH	3-19-14	SD
10 ppm ICAL	V3-124-8	V3-124-7	50 ppm	200	1 mL	10 ppm	MeOH	3-19-14	SD
5 ppm ICAL	V3-124-9	V3-124-7	50 ppm	100	1 mL	5 ppm	MeOH	3-19-14	SD
1 ppm ICAL	V3-124-10	V3-124-7	50 ppm	20	1 mL	1 ppm	MeOH	3-19-14	SD
~~CCV 50 ppm~~	~~V3-124-11~~	~~V3-123-3~~	~~2000 ppm~~	~~25 mL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~
		V3-124-4							
		V3-124-5							
2000 ppm SS	V3-124-12							3-21-14	SD
~~250 ppm IS~~	~~V3-124-13~~	~~V3-123-8~~	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~
~~250 ppm SS~~	~~V3-124-14~~	~~V3-123-5~~	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~
		V3-124-12							
~~8000 ppm IS~~	~~V3-124-15~~							3-31-14	SD

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M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214021286 8 comps.
Exp:Jun 28,2014 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Storage: Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6,2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

Continued to page

SIGNATURE

DISCLOSED TO AND UNDERSTOOD BY | DATE | PROPRIETARY INFORMATION

TITLE **PROJECT**

Continued from page 124 3.31.14

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
Albert	250 ppm IS	V3-125-1	V3-123-8							
			V3-124-15	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-31-14	SD
Albert	250 ppm SS	V3-125-2	V3-124-12	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-31-14	SD
Albert	250 ppm IS	V3-125-3	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-9-14	SD
	50 ppm CCV	V3-125-4	V3-123-13	2000 ppm	25 mL	1 mL	50 ppm	MeOH	4-9-14	SD
			V3-124-4			25 mL				
			V3-124-5							
10	50 ppm M.S.	V3-125-5	V3-115-17	2500 ppm	20 µL	1 mL	50 ppm	MeOH	4-9-14	SD
Albert	250 ppm SS	V3-125-6	V3-124-12	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-16-14	SD
Albert	250 ppm IS	V3-125-7	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-16-14	SD
	20000 ppm IS	V3-125-8							4-21-14	SD
15										
	20000 ppm SS	V3-125-9							4-21-14	SD
20										
Albert	250 ppm IS	V3-125-10	V3-124-15	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-21-14	SD
Albert	250 ppm SS	V3-125-11	V3-125-9	20000 ppm	250 µL	2 mL	250 ppm	MeOH	4-21-14	SD
Morris	50 ppm IS	V3-125-12	V3-125-8	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
Morris	50 ppm SS	V3-125-13	V3-125-9	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
25										
30										
35										

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
4 comps.
Lot: 212111287
Exp:Nov 19,2022
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
Storage: Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
4 comps.
Lot: 213111028
Exp: Nov 6,2023
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

Continued to page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

April 23, 2014

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0180-121-09
Laboratory Reference No. 1404-138

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on April 17, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-138
Project: 0180-121-09

Case Narrative

Samples were collected on April 16, 2014 and received by the laboratory on April 17, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-138
Project: 0180-121-09

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-103-140416	04-138-01	Water	4-16-14	4-17-14	
WDOT-MW-2-140416	04-138-02	Water	4-16-14	4-17-14	
WDOT-MW-1-140416	04-138-03	Water	4-16-14	4-17-14	
RIN-2-140416	04-138-04	Water	4-16-14	4-17-14	
TB-2-140416	04-138-05	Water	4-16-14	4-17-14	

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-138
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-103-140416**					
Laboratory ID:	04-138-01					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*86*	*62-122*				
Toluene-d8	*95*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-138
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**WDOT-MW-2-140416**					
Laboratory ID:	04-138-02					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*85*	*62-122*				
Toluene-d8	*97*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-138
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**WDOT-MW-1-140416**					
Laboratory ID:	04-138-03					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*87*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-138
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RIN-2-140416**					
Laboratory ID:	04-138-04					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*82*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-138
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TB-2-140416**					
Laboratory ID:	04-138-05					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*86*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*92*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-138
Project: 0180-121-09

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0421W1					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*83*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*92*	*71-120*				

Date of Report: April 23, 2014
Samples Submitted: April 17, 2014
Laboratory Reference: 1404-138
Project: 0180-121-09

VOLATILES by EPA 8260C
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	04-137-01										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	**8.66**	**8.50**	10.0	10.0	ND	87	85	57-133	2	15	
Benzene	**8.90**	**8.73**	10.0	10.0	ND	89	87	78-117	2	15	
Trichloroethene	**17.7**	**18.0**	10.0	10.0	8.40	93	96	77-120	2	15	
Toluene	**9.07**	**9.25**	10.0	10.0	ND	91	93	80-115	2	15	
Chlorobenzene	**10.3**	**10.3**	10.0	10.0	ND	103	103	80-122	0	15	
Surrogate:											
Dibromofluoromethane						*82*	*82*	*62-122*			
Toluene-d8						*95*	*95*	*70-120*			
4-Bromofluorobenzene						*92*	*93*	*71-120*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

12

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEI
Project Number: 0180-121-09
Project Name: Palermo
Project Manager: Nick Rohrbach
Sampled by: PDR/HLM

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 04-138

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C proj list	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
1	MW-103-140416	4/16/14	1020	GW	3					X											
2	WDOT-MW-2-140416		1210		3					X											
3	WDOT-MW-1-140416		1345		3					X											
4	RIN-2-140416		1415		3					X											
5	TB-2-140416				2					X											

	Signature	Company	Date	Time
Relinquished		GEI	4/17/14	835
Received		Spectrum	4/17	835
Relinquished				1245
Received		CORE	4/17/14	1245
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☒ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 0180-121-09

OnSite Project Number: 04-138

Initiated by: MM

Date Initiated: 4/17/14

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 0		
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A			
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No	1 2 3 4	
2.2 Was the COC legible and written in permanent ink?	Yes	No	1 2 3 4	
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No	1 2 3 4	
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No	1 2 3 4	
2.5 Were all of the samples listed on the COC submitted?	Yes	No	1 2 3 4	
2.6 Were any of the samples submitted omitted from the COC?	Yes	No	1 2 3 4	

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4	
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4	
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4	
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4	
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	N/A	1 2 3 4	
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4	
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4	
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4	
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4	

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

Complete Data Package

- Volatiles by EPA 8260C

Volatiles by EPA 8260C Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421017.d
Acq On : 21 Apr 2014 2:17 pm
Operator :
Sample : 04-138-01b
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 21 14:38:13 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	565535	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	844298	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	650472	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	254165	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	221467	8.60	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 86.00%			
36) Toluene-d8	6.220	98	948244	9.53	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.30%			
54) 4-Bromofluorobenzene	8.622	95	268277	9.29	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.90%			

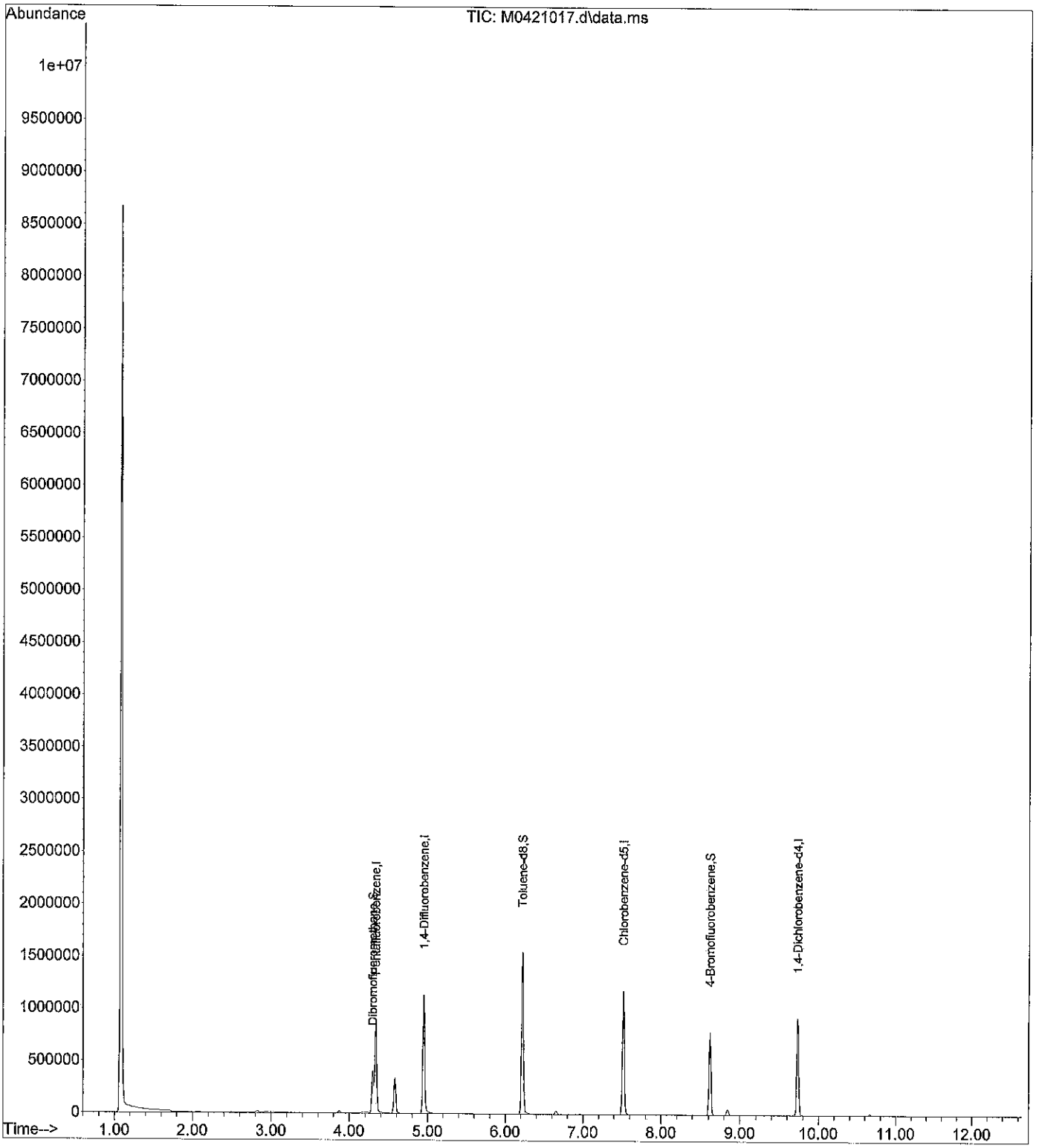
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421017.d
Acq On : 21 Apr 2014 2:17 pm
Operator :
Sample : 04-138-01b
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 21 14:38:13 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421018.d
Acq On : 21 Apr 2014 2:40 pm
Operator :
Sample : 04-138-02b
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 22 07:16:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

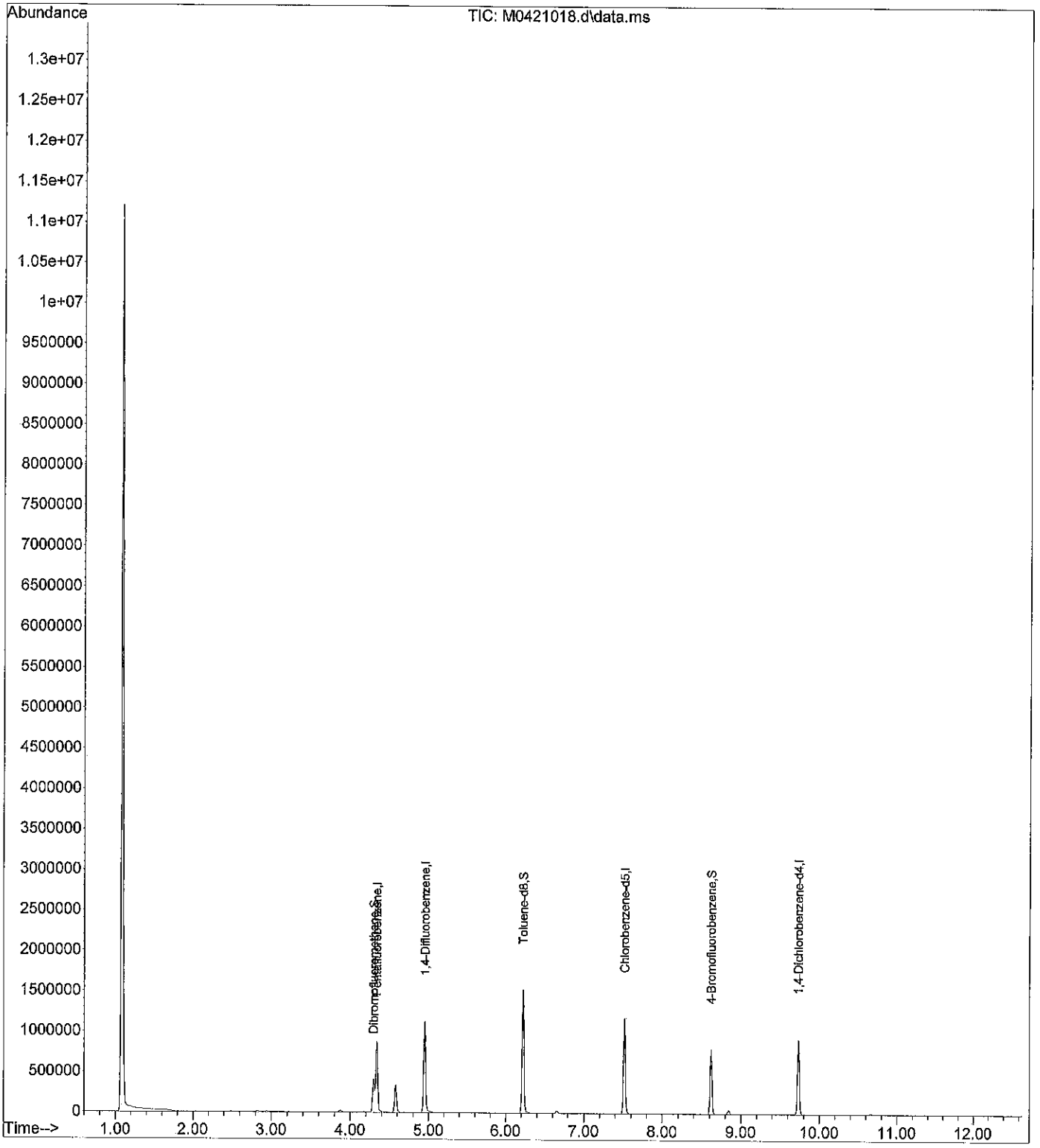
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	569542	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	826956	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	653057	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	258992	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	221742	8.55	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 85.50%			
36) Toluene-d8	6.220	98	945030	9.70	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 97.00%			
54) 4-Bromofluorobenzene	8.622	95	270917	9.35	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.50%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421018.d
Acq On : 21 Apr 2014 2:40 pm
Operator :
Sample : 04-138-02b
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 22 07:16:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421019.d
Acq On : 21 Apr 2014 3:04 pm
Operator :
Sample : 04-138-03b
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 22 07:16:53 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

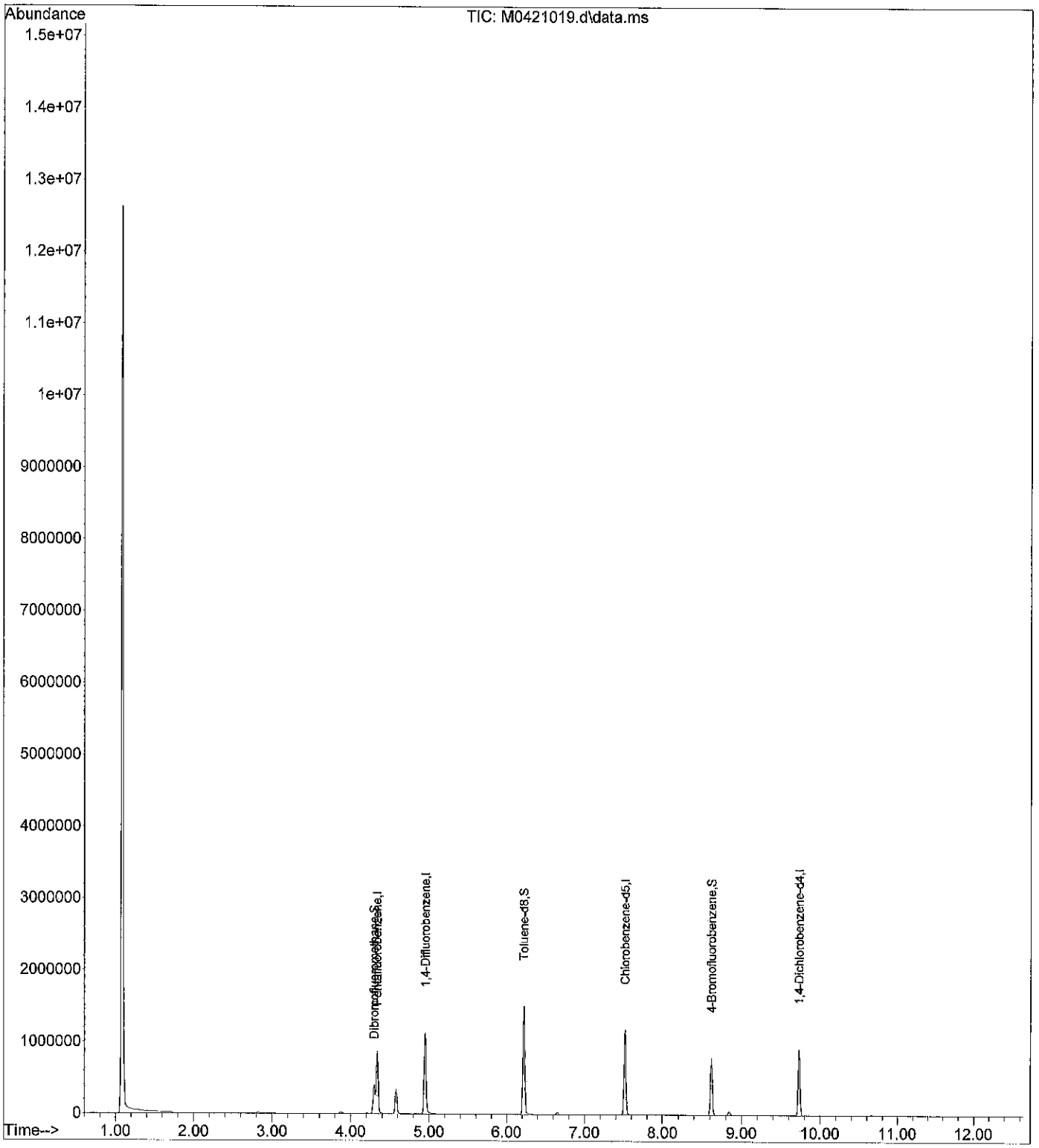
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	565750	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	827916	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	643097	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	253797	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	223494	8.67	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 86.70%			
36) Toluene-d8	6.220	98	938790	9.62	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.20%			
54) 4-Bromofluorobenzene	8.622	95	265308	9.29	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.90%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421019.d
Acq On : 21 Apr 2014 3:04 pm
Operator :
Sample : 04-138-03b
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 22 07:16:53 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421020.d
Acq On : 21 Apr 2014 3:31 pm
Operator :
Sample : 04-138-04b
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 22 07:17:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

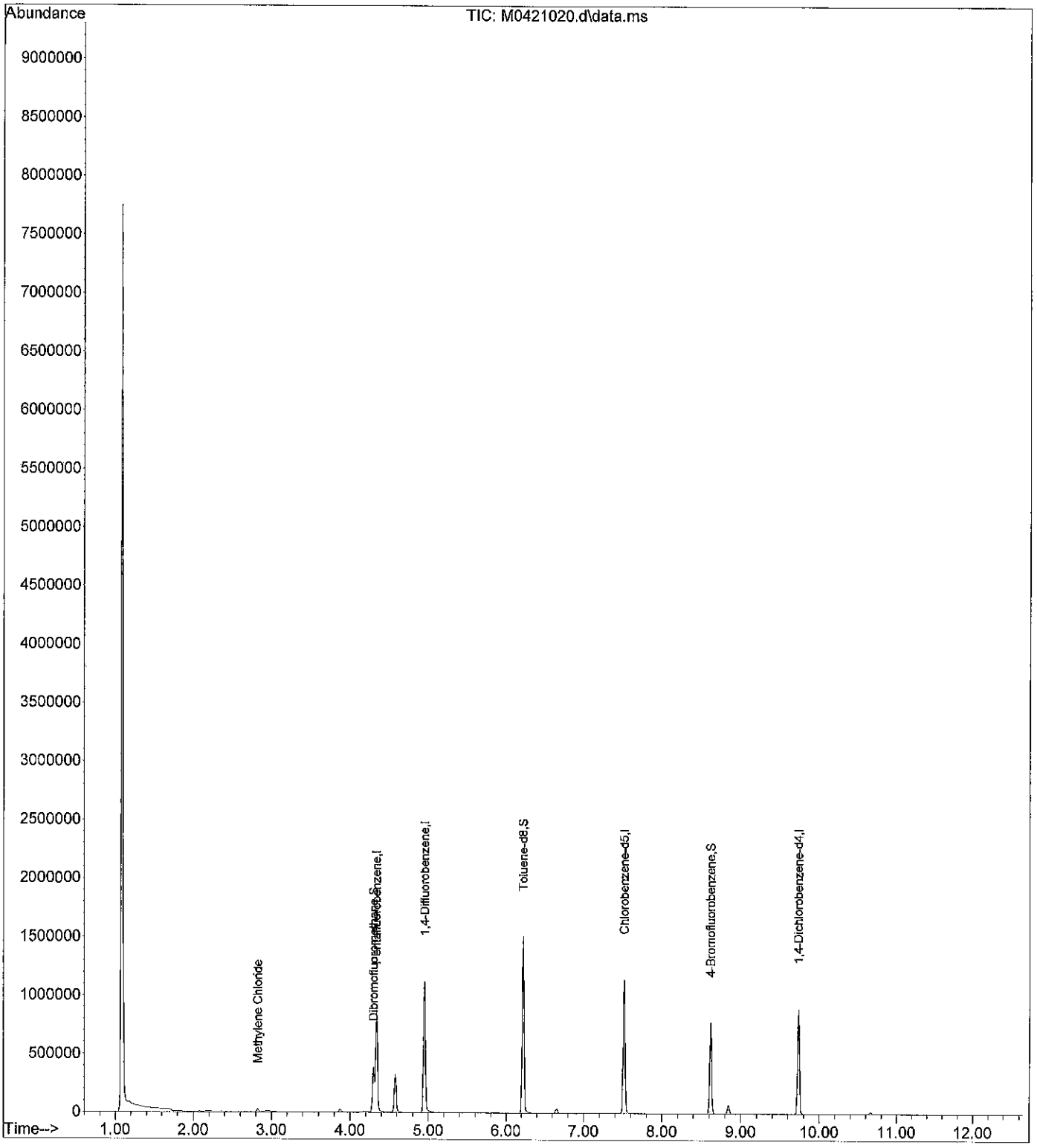
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	568717	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	829209	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	630972	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	247246	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	212653	8.21	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 82.10%			
36) Toluene-d8	6.220	98	937002	9.59	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.90%			
54) 4-Bromofluorobenzene	8.622	95	260366	9.30	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.00%			
Target Compounds						Qvalue
12) Methylene Chloride	2.824	49	11355	0.20	ppb	95

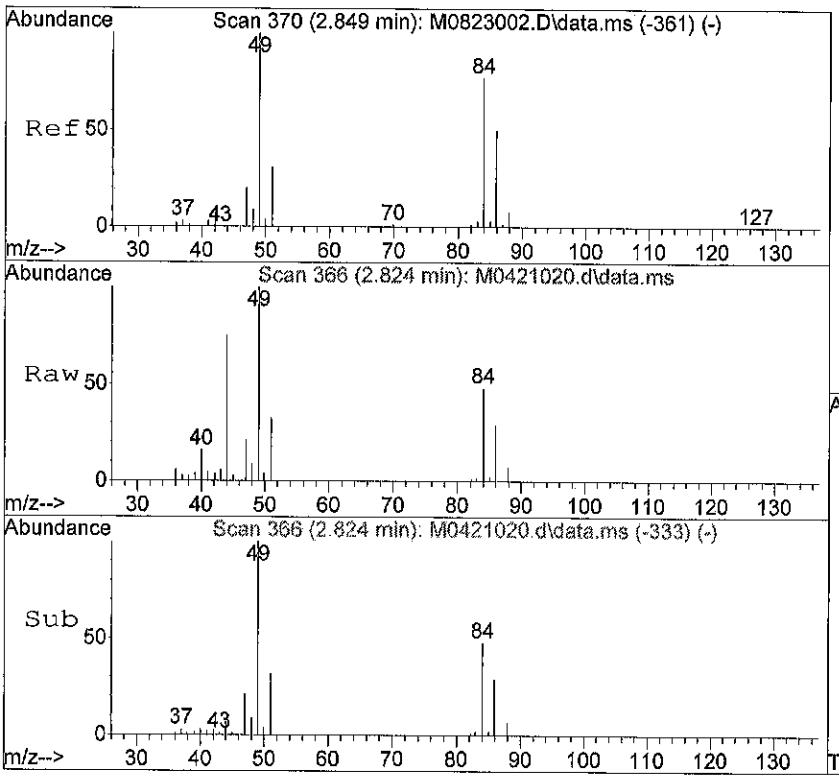
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421020.d
Acq On : 21 Apr 2014 3:31 pm
Operator :
Sample : 04-138-04b
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 22 07:17:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

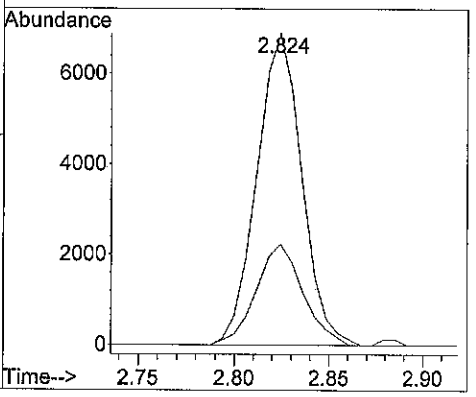




#12
Methylene Chloride
Concen: 0.20 ppb
RT: 2.824 min Scan# 366
Delta R.T. 0.000 min
Lab File: M0421020.d
Acq: 21 Apr 2014 3:31 pm

Tgt Ion: 49 Resp: 11355

Ion	Ratio	Lower	Upper
49	100		
51	33.7	24.8	37.2



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421021.d
Acq On : 21 Apr 2014 3:55 pm
Operator :
Sample : 04-138-05b
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Apr 22 07:17:57 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

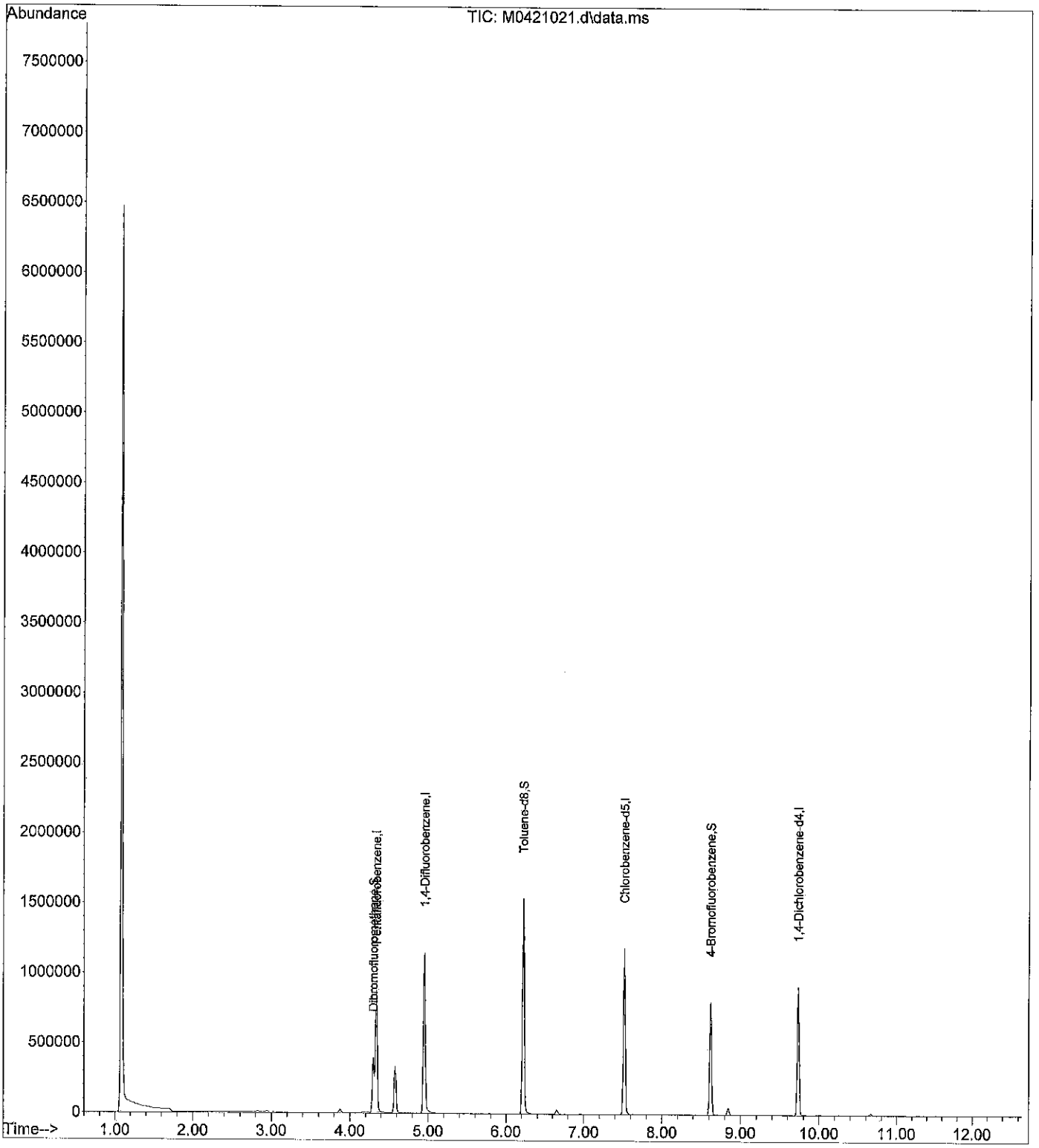
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	569815	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	839597	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	651492	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	257102	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	222324	8.57	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 85.70%			
36) Toluene-d8	6.220	98	951674	9.62	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.20%			
54) 4-Bromofluorobenzene	8.622	95	265854	9.19	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 91.90%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421021.d
Acq On : 21 Apr 2014 3:55 pm
Operator :
Sample : 04-138-05b
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Apr 22 07:17:57 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421006.d
Acq On : 21 Apr 2014 9:50 am
Operator :
Sample : MB0421W1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 21 10:26:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

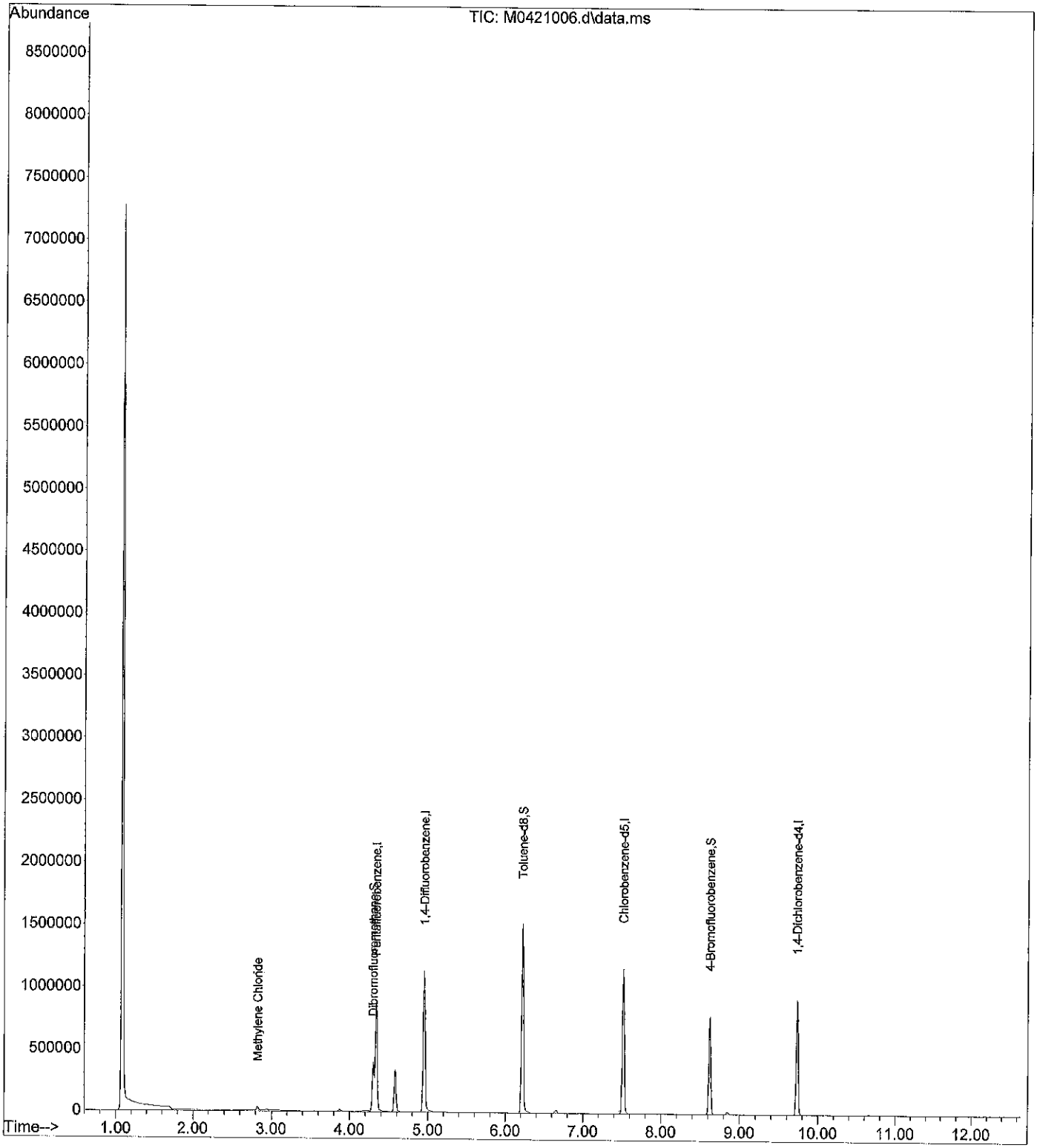
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	575038	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	840158	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	651278	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	255461	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	217851	8.32	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 83.20%			
36) Toluene-d8	6.220	98	948990	9.58	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.80%			
54) 4-Bromofluorobenzene	8.622	95	265186	9.17	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 91.70%			
Target Compounds						Qvalue
12) Methylene Chloride	2.824	49	17830	0.31	ppb	98

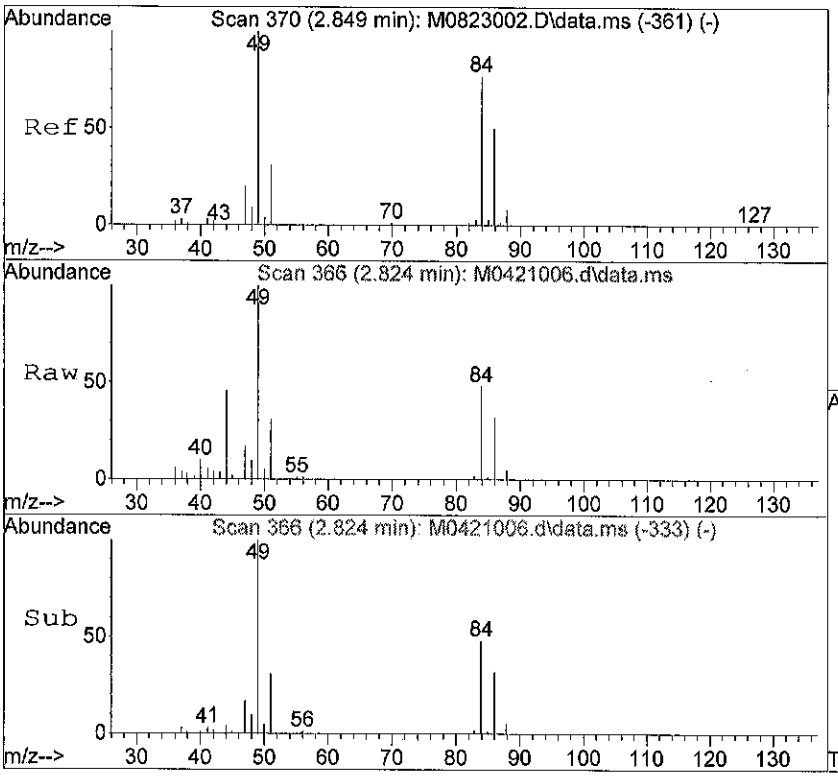
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421006.d
Acq On : 21 Apr 2014 9:50 am
Operator :
Sample : MB0421W1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 21 10:26:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

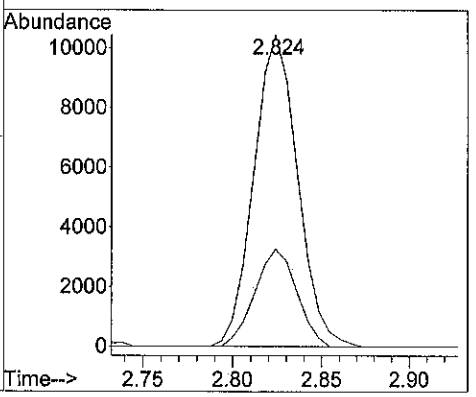




#12
Methylene Chloride
Concen: 0.31 ppb
RT: 2.824 min Scan# 366
Delta R.T. 0.000 min
Lab File: M0421006.d
Acq: 21 Apr 2014 9:50 am

Tgt Ion: 49 Resp: 17830

Ion	Ratio	Lower	Upper
49	100		
51	29.8	24.8	37.2



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421003.d
Acq On : 21 Apr 2014 8:39 am
Operator :
Sample : SB0421W1
Misc : V3-125-5
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 21 09:47:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

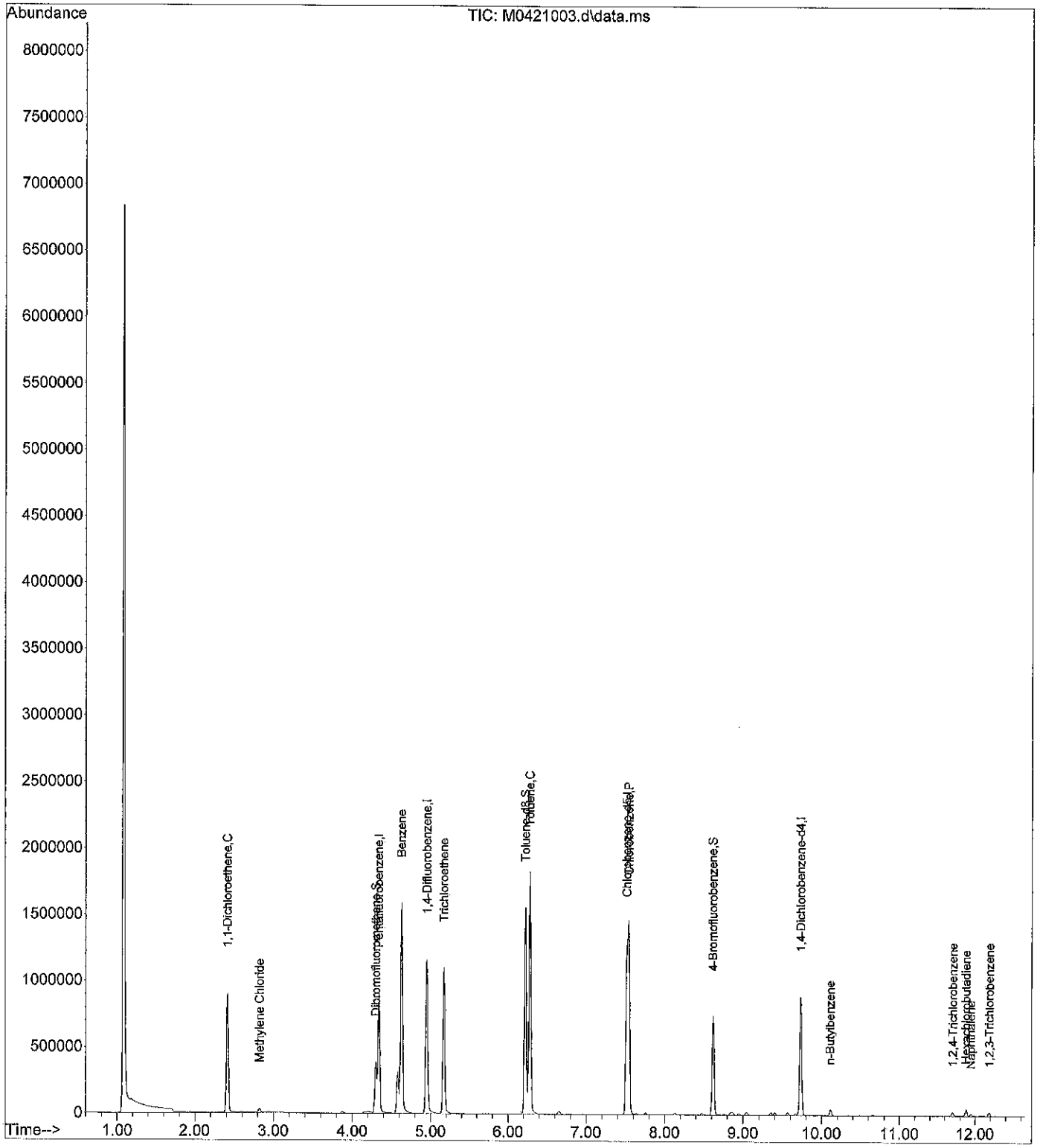
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	583615	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	851796	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	638455	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246954	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	213336	8.03	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.30%				
36) Toluene-d8	6.220	98	956216	9.53	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.30%				
54) 4-Bromofluorobenzene	8.616	95	259203	9.15	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 91.50%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	596716	8.89	ppb		100
12) Methylene Chloride	2.824	49	17811	0.31	ppb		94
26) Benzene	4.629	78	1175699	8.79	ppb		99
29) Trichloroethene	5.171	130	344421	9.17	ppb		99
37) Toluene	6.275	91	1268119	9.15	ppb		99
46) Chlorobenzene	7.543	112	732221	10.30	ppb		100
70) n-Butylbenzene	10.109	91	17669	0.23	ppb		94
72) 1,2,4-Trichlorobenzene	11.706	180	9441	1.22	ppb		98
73) Hexachlorobutadiene	11.877	225	10518	1.45	ppb		97
74) Naphthalene	11.944	128	9910	1.08	ppb		95
75) 1,2,3-Trichlorobenzene	12.188	180	8511	1.80	ppb	#	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421003.d
Acq On : 21 Apr 2014 8:39 am
Operator :
Sample : SB0421W1
Misc : V3-125-5
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 21 09:47:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421007.d
Acq On : 21 Apr 2014 10:13 am
Operator :
Sample : 04-137-01b
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 21 10:27:01 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

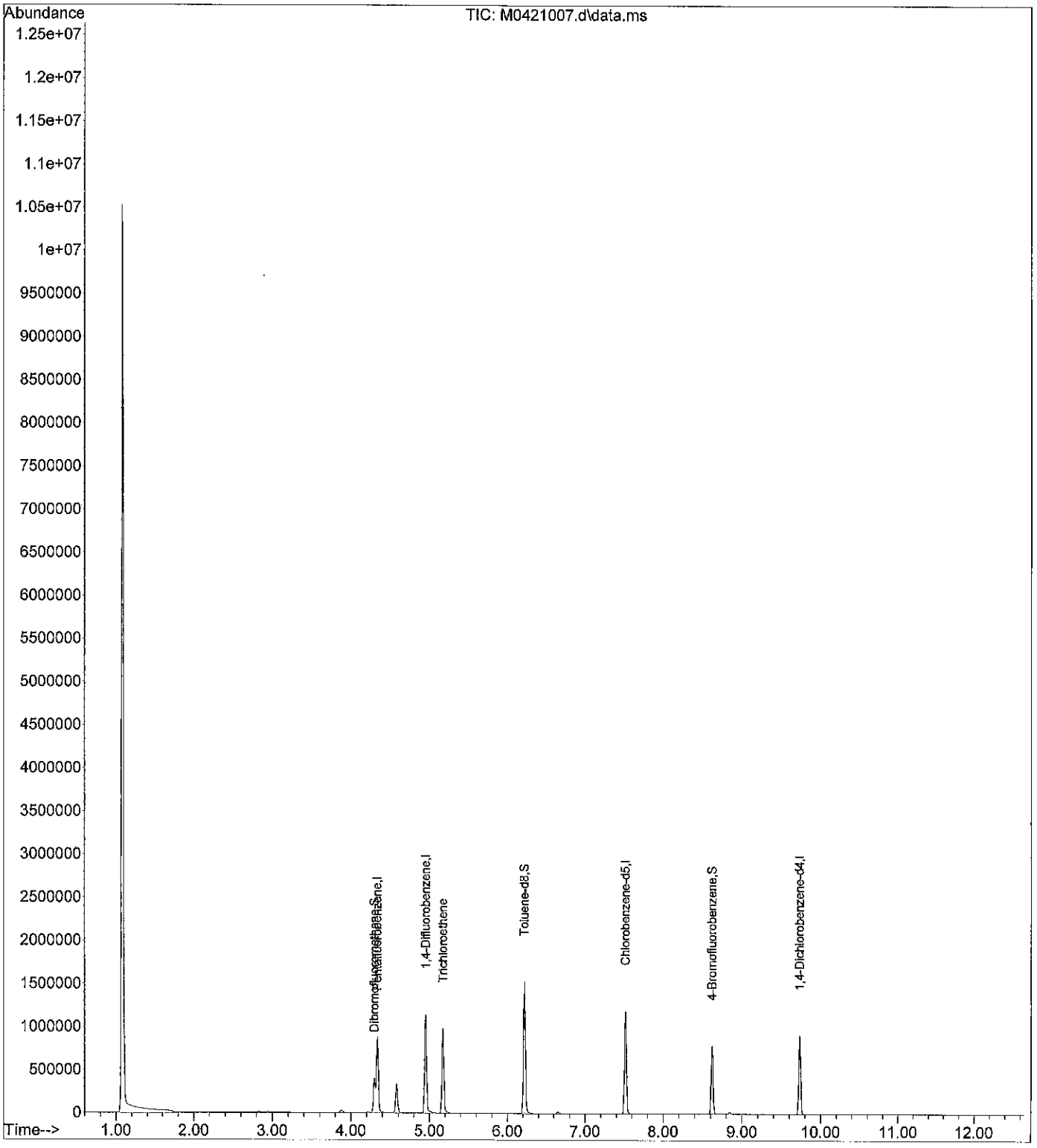
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	572939	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	840580	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	643845	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	248008	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	219418	8.41	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.10%			
36) Toluene-d8	6.220	98	950927	9.60	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.00%			
54) 4-Bromofluorobenzene	8.622	95	265459	9.29	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.90%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	311424	8.40	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421007.d
Acq On : 21 Apr 2014 10:13 am
Operator :
Sample : 04-137-01b
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 21 10:27:01 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421004.d
Acq On : 21 Apr 2014 9:03 am
Operator :
Sample : 04-137-01c MS
Misc : V3-125-5
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 21 09:48:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

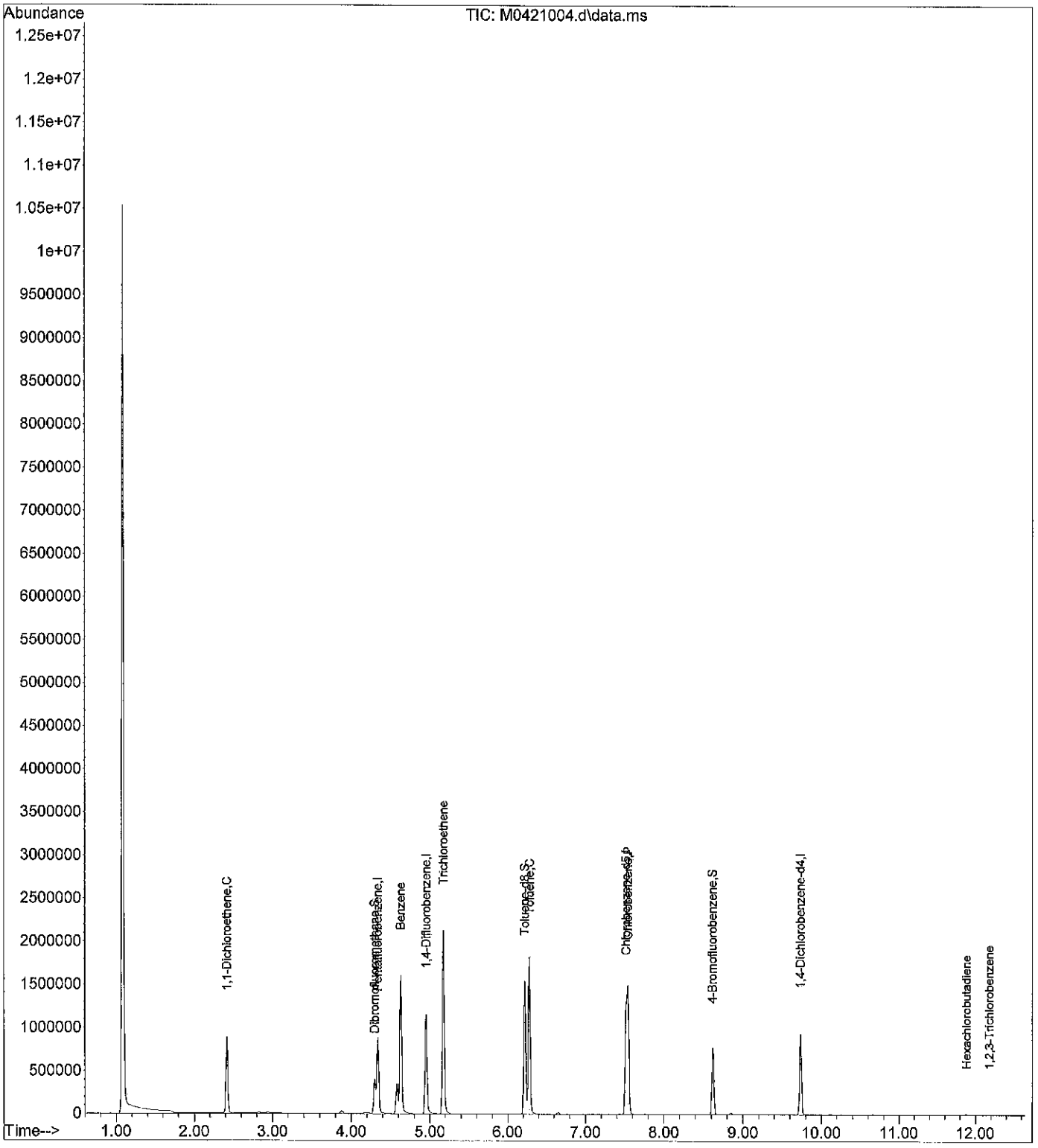
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	577702	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	854037	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	650908	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	257039	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	215973	8.21	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 82.10%				
36) Toluene-d8	6.220	98	954650	9.49	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 94.90%				
54) 4-Bromofluorobenzene	8.616	95	266730	9.23	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.30%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	575059	8.66	ppb		100
26) Benzene	4.629	78	1178102	8.90	ppb		100
29) Trichloroethene	5.171	130	665592	17.67	ppb		100
37) Toluene	6.281	91	1260297	9.07	ppb		99
46) Chlorobenzene	7.543	112	745209	10.28	ppb		100
73) Hexachlorobutadiene	11.883	225	1952	0.26	ppb		93
75) 1,2,3-Trichlorobenzene	12.182	180	1029	0.32	ppb	#	87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421004.d
Acq On : 21 Apr 2014 9:03 am
Operator :
Sample : 04-137-01c MS
Misc : V3-125-5
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 21 09:48:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421005.d
Acq On : 21 Apr 2014 9:26 am
Operator :
Sample : 04-137-01d MSD
Misc : V3-125-5
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 21 09:49:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

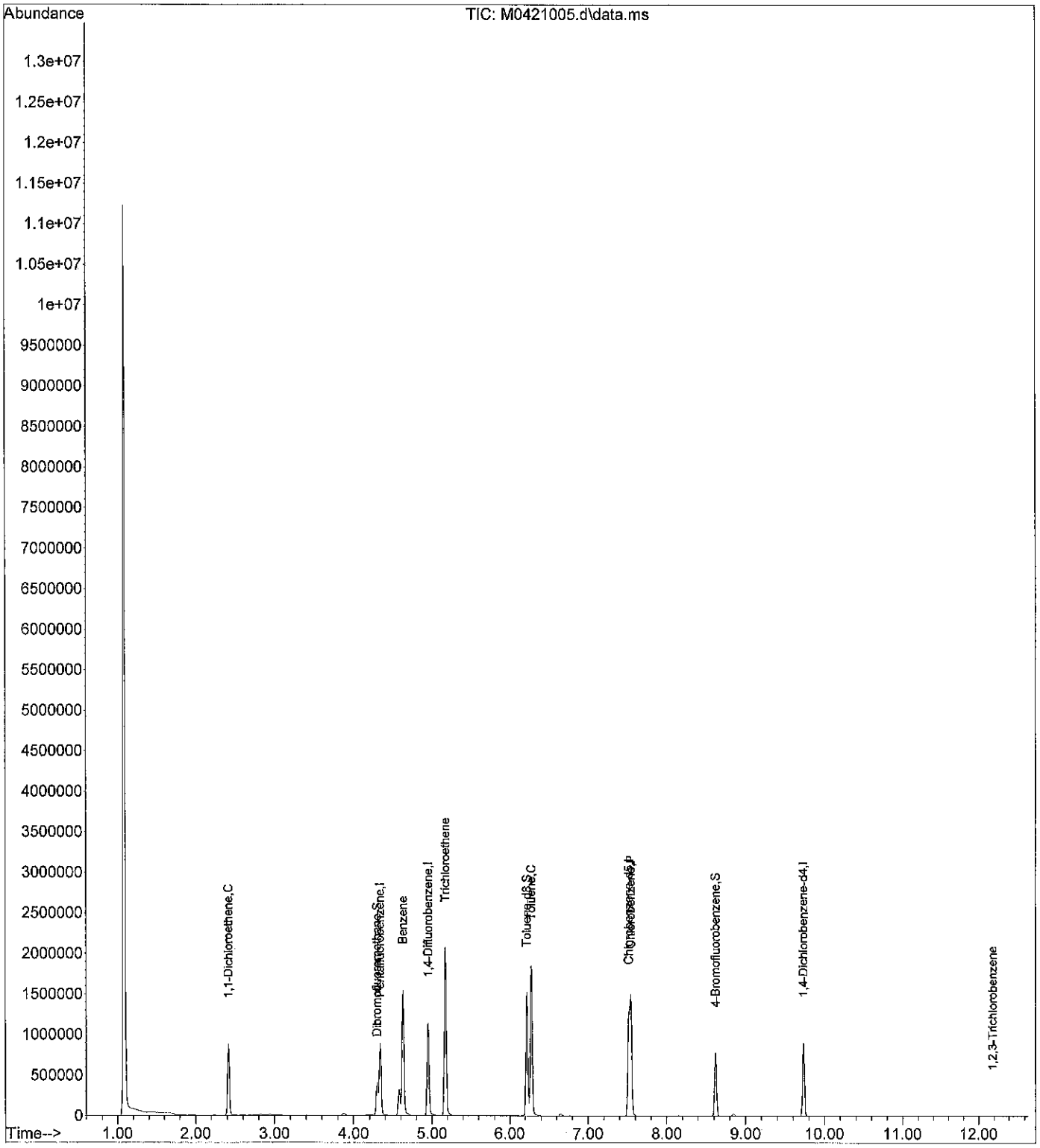
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	582849	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	844413	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	648272	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	251232	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	217940	8.21	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 82.10%				
36) Toluene-d8	6.220	98	946516	9.51	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.10%				
54) 4-Bromofluorobenzene	8.622	95	266697	9.27	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.70%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	569350	8.50	ppb		100
26) Benzene	4.629	78	1165226	8.73	ppb		100
29) Trichloroethene	5.171	130	669894	17.99	ppb		99
37) Toluene	6.275	91	1270584	9.25	ppb		100
46) Chlorobenzene	7.543	112	740051	10.25	ppb		100
75) 1,2,3-Trichlorobenzene	12.182	180	382	0.20	ppb	#	75

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421005.d
Acq On : 21 Apr 2014 9:26 am
Operator :
Sample : 04-137-01d MSD
Misc : V3-125-5
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 21 09:49:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Compound List Report Morris

Method Path : C:\msdchem\1\methods\ .
Method File : M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014
Response Via : Initial Calibration

Total Cpnds : 75

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene	168	4.336	1.000	A	0	A	B
2		Dichlorodifluoromethane	85	1.209	0.279	A	1	A	B
3	P	Chloromethane	50	1.343	0.310	A	1	A	B
4	C	Vinyl Chloride	62	1.428	0.329	A	1	A	B
5		Bromomethane	96	1.690	0.390	A	1	A	B
6		Chloroethane	64	1.770	0.408	A	1	A	B
7		Trichlorofluoromethane	101	1.977	0.456	A	1	A	B
8	C	1,1-Dichloroethene	61	2.416	0.557	A	1	A	B
9		Acetone	43	2.471	0.570	L	1	A	B
10		Iodomethane	142	2.538	0.585	L	1	A	B
11		Carbon Disulfide	76	2.593	0.598	A	1	A	B
12		Methylene Chloride	49	2.824	0.651	A	1	A	B
13		(trans) 1,2-Dichloroethene	61	3.056	0.705	A	1	A	B
14		Methyl t-Butyl Ether	73	3.068	0.708	A	3	A	B
15	P	1,1-Dichloroethane	63	3.410	0.786	A	1	A	B
16		Vinyl Acetate	43	3.458	0.798	A	1	A	B
17		2,2-Dichloropropane	77	3.897	0.899	A	1	A	B
18		(cis) 1,2-Dichloroethene	61	3.897	0.899	A	1	A	B
19		2-Butanone	43	3.922	0.905	A	1	A	B
20		Bromochloromethane	130	4.098	0.945	A	3	A	B
21	C	Chloroform	83	4.165	0.961	A	1	A	B
22		1,1,1-Trichloroethane	97	4.318	0.996	A	1	A	B
23	S	Dibromofluoromethane	111	4.300	0.992	A	1	A	B
24		Carbon Tetrachloride	117	4.458	1.028	A	1	A	B
25		1,1-Dichloropropene	75	4.452	1.027	A	1	A	B
26		Benzene	78	4.629	1.068	A	1	A	B
27		1,2-Dichloroethane	62	4.641	1.070	A	1	A	B
28	I	1,4-Difluorobenzene	114	4.952	1.000	A	0	A	B
29		Trichloroethene	130	5.171	1.044	A	1	A	B
30	C	1,2-Dichloropropane	63	5.360	1.082	A	1	A	B
31		Dibromomethane	174	5.464	1.103	A	2	A	B
32		Bromodichloromethane	83	5.598	1.130	A	1	A	B
33		2-Chloroethyl Vinyl Ether	63	5.860	1.183	A	1	A	B
34		(cis) 1,3-Dichloropropene	75	5.982	1.208	A	1	A	B
35		Methyl Isobutyl Ketone	43	6.122	1.236	A	3	A	B
36	S	Toluene-d8	98	6.220	1.256	A	1	A	B
37	C	Toluene	91	6.275	1.267	A	1	A	B
38	I	Chlorobenzene-d5	117	7.518	1.000	A	1	A	B
39		(trans) 1,3-Dichloropropene	75	6.470	0.861	A	1	A	B
40		1,1,2-Trichloroethane	97	6.635	0.883	A	1	A	B
41		Tetrachloroethene	166	6.769	0.900	A	2	A	B
42		1,3-Dichloropropane	76	6.787	0.903	A	1	A	B
43		2-Hexanone	43	6.866	0.913	A	3	A	B
44		Dibromochloromethane	129	6.988	0.930	A	2	A	B
45		1,2-Dibromoethane	107	7.092	0.943	A	1	A	B
46	P	Chlorobenzene	112	7.543	1.003	A	1	A	B
47		1,1,1,2-Tetrachloroethane	133	7.616	1.013	A	2	A	B
48	C	Ethylbenzene	91	7.646	1.017	A	1	A	B
49		m,p-Xylene	91	7.756	1.032	A	1	A	B
50		o-Xylene	91	8.128	1.081	A	1	A	B
51		Styrene	104	8.140	1.083	A	0	A	B
52	P	Bromoform	173	8.311	1.105	A	2	A	B
53		Isopropylbenzene	105	8.476	1.127	A	1	A	B
54	S	4-Bromofluorobenzene	95	8.616	1.146	A	2	A	B

55 I	1,4-Dichlorobenzene-d4	152	9.731	1.000	A	1	A	B
56	Bromobenzene	156	8.762	0.900	A	1	A	B
57 P	1,1,2,2-Tetrachloroethane	83	8.762	0.900	A	1	A	B
58	1,2,3-Trichloropropane	75	8.799	0.904	A	1	A	B
59	n-Propylbenzene	91	8.872	0.912	A	1	A	B
60	2-Chlorotoluene	126	8.951	0.920	A	1	A	B
61	4-Chlorotoluene	126	9.055	0.931	A	1	A	B
62	1,3,5-Trimethylbenzene	105	9.043	0.929	A	1	A	B
63	tert-Butylbenzene	119	9.353	0.961	A	1	A	B
64	1,2,4-Trimethylbenzene	105	9.402	0.966	A	1	A	B
65	sec-Butylbenzene	105	9.567	0.983	A	1	A	B
66	1,3-Dichlorobenzene	146	9.670	0.994	A	1	A	B
67	p-Isopropyltoluene	119	9.713	0.998	A	1	A	B
68	1,4-Dichlorobenzene	146	9.756	1.003	A	1	A	B
69	1,2-Dichlorobenzene	146	10.116	1.040	A	1	A	B
70	n-Butylbenzene	91	10.109	1.039	A	1	A	B
71	1,2-Dibromo-3-chloropropane	157	10.884	1.118	A	2	A	B
72	1,2,4-Trichlorobenzene	180	11.701	1.202	A	2	A	B
73	Hexachlorobutadiene	225	11.883	1.221	A	2	A	B
74	Naphthalene	128	11.944	1.227	A	1	A	B
75	1,2,3-Trichlorobenzene	180	12.182	1.252	L	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

M140328W.M Fri Mar 28 13:13:22 2014

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014
Response Via : Initial Calibration

Calibration Files
.2 =M0328003.d 1 =M0328004.d 2 =M0328005.d 5 =M0328006.d 10 =M0328007.d 25 =M0328009.d
50 =M0328011.d .1 =M0716005.d

		Compound	.2	1	2	5	10	25	50	.1	Avg	%RSD
		ISTD										
1)	I	Pentafluorobenzene									0.767#	10.86
2)		Dichlorodifluo...	0.731	0.674	0.745	0.721	0.732	0.902	0.866		1.186	7.07
3)	P	Chloromethane	1.322	1.085	1.163	1.119	1.136	1.255	1.220		0.999#	5.52#
4)	C	Vinyl Chloride	1.043	0.912	0.981	0.959	0.988	1.068	1.043		0.475#	8.17
5)		Bromomethane	0.556	0.485	0.468	0.441	0.450	0.468	0.455		0.524#	8.82
6)		Chloroethane	0.625	0.496	0.509	0.492	0.506	0.527	0.513		1.076#	4.44
7)		Trichlorofluor...	1.156	1.019	1.056	1.033	1.070	1.117	1.080		1.150#	4.28#
8)	C	1,1-Dichloroet...	1.241	1.098	1.119	1.116	1.139	1.185	1.149		0.079#	15.41
9)		Acetone		0.091	0.094	0.079	0.071	0.071	0.065		0.707#	15.14
10)		Iodomethane		0.538	0.633	0.703	0.753	0.828	0.787		1.828#	4.27
11)		Carbon Disulfide	1.915	1.725	1.786	1.757	1.809	1.917	1.887		0.989#	9.22
12)		Methylene Chlo...	1.192	0.974	0.974	0.934	0.942	0.966	0.942		1.158#	5.43
13)		(trans) 1,2-Di...	1.274	1.090	1.151	1.091	1.147	1.190	1.161		0.729#	1.91
14)		Methyl t-Butyl...	0.739	0.711	0.732	0.724	0.712	0.737	0.748		1.319	2.47
15)	P	1,1-Dichloroet...	1.345	1.272	1.313	1.288	1.313	1.365	1.339		0.558#	6.53
16)		Vinyl Acetate		0.614	0.569	0.542	0.518	0.545			0.842#	2.31
17)		2,2-Dichloropr...	0.870	0.833	0.840	0.814	0.843	0.864	0.832		1.218#	3.17
18)		(cis) 1,2-Dich...	1.198	1.187	1.196	1.189	1.212	1.281	1.265		0.121#	4.60
19)		2-Butanone	0.125	0.124	0.129	0.120	0.116	0.119	0.113		0.255#	2.79
20)		Bromochloromet...	0.248	0.246	0.258	0.251	0.256	0.264	0.263		1.043#	3.72#
21)	C	Chloroform	1.120	1.006	1.026	1.020	1.022	1.063	1.041		1.005#	2.90
22)		1,1,1-Trichlor...	1.045	0.986	0.979	0.971	1.000	1.040	1.016		0.455#	2.52
23)	S	Dibromofluorom...	0.432	0.452	0.466	0.464	0.455	0.460	0.459		0.939#	4.33
24)		Carbon Tetrach...	1.007	0.907	0.921	0.894	0.918	0.975	0.953		0.871#	5.40
25)		1,1-Dichloropr...	0.957	0.826	0.855	0.825	0.850	0.898	0.887		2.291#	3.64
26)		Benzene	2.426	2.214	2.226	2.215	2.261	2.360	2.336		0.634#	1.46
27)		1,2-Dichloroet...	0.629	0.625	0.641	0.627	0.635	0.651	0.634			
		ISTD										
28)	I	1,4-Difluorobenzene									0.441#	5.29
29)		Trichloroethene	0.485	0.417	0.432	0.425	0.433	0.460	0.435		0.403#	3.55#
30)	C	1,2-Dichloropr...	0.380	0.396	0.404	0.399	0.397	0.420	0.421		0.129#	6.02
31)		Dibromomethane	0.113	0.127	0.135	0.131	0.129	0.135	0.134		0.400#	4.69
32)		Bromodichlorom...	0.366	0.406	0.402	0.392	0.396	0.417	0.423		0.022#	11.46
33)		2-Chloroethyl ...		0.019	0.022	0.020	0.020	0.022	0.026		0.411#	9.25
34)		(cis) 1,3-Dich...	0.357	0.379	0.399	0.410	0.417	0.457	0.460		0.147#	6.45
35)		Methyl Isobuty...	0.150	0.133	0.150	0.144	0.139	0.152	0.162		1.178#	1.16
36)	S	Toluene-d8	1.157	1.169	1.180	1.181	1.176	1.184	1.201		1.628#	4.88#
37)	C	Toluene	1.762	1.581	1.569	1.556	1.567	1.668	1.689			

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :

38)	I	Chlorobenzene-d5	ISTD								
39)		(trans) 1,3-Di...	0.329	0.326	0.342	0.341	0.362	0.382	0.382	0.352#	6.74
40)		1,1,2-Trichlor...	0.258	0.200	0.201	0.200	0.200	0.213	0.208	0.212#	10.00
41)		Tetrachloroethene	0.585	0.541	0.533	0.515	0.537	0.563	0.545	0.546#	4.10
42)		1,3-Dichloropr...	0.363	0.346	0.364	0.369	0.371	0.386	0.377	0.368#	3.43
43)		2-Hexanone	0.142	0.125	0.116	0.123	0.117	0.132	0.130	0.126#	7.09
44)		Dibromochlorom...	0.253	0.266	0.266	0.270	0.273	0.293	0.293	0.273#	5.38
45)		1,2-Dibromoethane	0.177	0.186	0.186	0.186	0.183	0.193	0.185	0.185#	2.57
46)	P	Chlorobenzene	1.255	1.079	1.070	1.047	1.080	1.139	1.123	1.113	6.29
47)		1,1,1,2-Tetrac...	0.341	0.354	0.343	0.353	0.362	0.379	0.379	0.359#	4.32
48)	C	Ethylbenzene	2.325	1.997	2.059	2.064	2.191	2.361	2.310	2.186#	6.78#
49)		m,p-Xylene	1.605	1.490	1.545	1.591	1.662	1.789	1.770	1.636#	6.82
50)		o-Xylene	1.494	1.366	1.422	1.447	1.507	1.624	1.603	1.495#	6.27
51)		Styrene	1.023	0.990	1.056	1.103	1.149	1.243	1.236	1.114#	8.97
52)	P	Bromoform	0.125	0.127	0.132	0.139	0.140	0.153	0.158	0.139	9.15
53)		Isopropylbenzene	1.831	1.673	1.754	1.804	1.913	2.064	2.019	1.865#	7.57
54)	S	4-Bromofluorob...	0.413	0.435	0.446	0.452	0.454	0.456	0.452	0.444#	3.48
55)	I	1,4-Dichlorobenzen...	ISTD								
56)		Bromobenzene	1.034	0.877	0.855	0.847	0.875	0.937	0.909	0.905#	7.16
57)	P	1,1,2,2-Tetrac...	0.459	0.445	0.425	0.427	0.414	0.440	0.458	0.438	3.93
58)		1,2,3-Trichlor...	0.352	0.338	0.369	0.338	0.335	0.349	0.341	0.346#	3.40
59)		n-Propylbenzene	6.049	4.935	4.930	4.942	5.346	5.647	5.494	5.335#	8.07
60)		2-Chlorotoluene	1.149	0.992	0.967	0.946	1.025	1.084	1.032	1.028#	6.82
61)		4-Chlorotoluene	1.079	0.964	0.958	0.954	1.011	1.056	1.040	1.009#	5.06
62)		1,3,5-Trimethy...	3.976	3.290	3.584	3.576	3.875	4.120	4.024	3.778#	7.96
63)		tert-Butylbenzene	3.231	2.588	2.781	2.779	3.103	3.224	3.128	2.977#	8.60
64)		1,2,4-Trimethy...	3.625	3.172	3.266	3.380	3.588	3.771	3.711	3.502#	6.57
65)		sec-Butylbenzene	4.557	3.886	3.983	4.040	4.421	4.650	4.517	4.293#	7.30
66)		1,3-Dichlorobe...	1.683	1.484	1.540	1.486	1.544	1.611	1.593	1.563#	4.57
67)		p-Isopropyltol...	3.569	2.941	3.184	3.180	3.473	3.704	3.617	3.381#	8.34
68)		1,4-Dichlorobe...	1.842	1.506	1.586	1.565	1.606	1.679	1.655	1.634#	6.61
69)		1,2-Dichlorobe...	1.147	1.061	1.102	1.111	1.127	1.195	1.194	1.134#	4.31
70)		n-Butylbenzene	3.362	2.757	2.828	2.927	3.122	3.314	3.297	3.086#	8.09
71)		1,2-Dibromo-3-...		0.040	0.049	0.048	0.050	0.056	0.056	0.050#	11.77
72)		1,2,4-Trichlor...	0.294	0.266	0.307	0.323	0.312	0.332	0.356	0.313#	9.10
73)		Hexachlorobuta...	0.353	0.269	0.277	0.291	0.281	0.290	0.290	0.293#	9.51
74)		Naphthalene		0.325	0.338	0.368	0.366	0.397	0.439	0.372#	11.18
75)		1,2,3-Trichlor...	0.123	0.149	0.177	0.203	0.199	0.196	0.211	0.180#	18.07

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	485934	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	740470	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	555715	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	198284	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.293	111	209890	9.62	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 96.20%				
36) Toluene-d8	6.220	98	856932	9.84	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 98.40%				
54) 4-Bromofluorobenzene	8.616	95	229303	9.00	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 90.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	7107	0.19	ppb		100
3) Chloromethane	1.343	50	12848	0.22	ppb		100
4) Vinyl Chloride	1.428	62	10132	0.21	ppb		92
5) Bromomethane	1.684	96	5406	0.24	ppb		94
6) Chloroethane	1.763	64	6077	0.24	ppb		98
7) Trichlorofluoromethane	1.977	101	11235	0.22	ppb		97
8) 1,1-Dichloroethene	2.416	61	12064	0.22	ppb		99
9) ~~Acetone~~	2.465	43	3046	0.32	ppb		92
10) ~~Iodomethane~~	2.538	142	4255	0.53	ppb		96
11) Carbon Disulfide	2.593	76	18609	0.21	ppb		95
12) Methylene Chloride	2.824	49	11589	0.24	ppb		97
13) (trans) 1,2-Dichloroet...	3.056	61	12377	0.23	ppb		99
14) Methyl t-Butyl Ether	3.068	73	7179	0.20	ppb	#	88
15) 1,1-Dichloroethane	3.410	63	13071	0.21	ppb		96
16) ~~Vinyl Acetate~~	3.458	43	7482	0.66	ppb	#	81
17) 2,2-Dichloropropane	3.891	77	8459	0.20	ppb	#	78
18) (cis) 1,2-Dichloroethene	3.897	61	11646	0.20	ppb		96
19) 2-Butanone	3.916	43	1217	0.21	ppb	#	52
20) Bromochloromethane	4.092	130	2414	0.20	ppb		97
21) Chloroform	4.165	83	10889	0.22	ppb		98
22) 1,1,1-Trichloroethane	4.312	97	10155	0.21	ppb	#	1
24) Carbon Tetrachloride	4.452	117	9784	0.22	ppb		98
25) 1,1-Dichloropropene	4.452	75	9303	0.22	ppb		95
26) Benzene	4.629	78	23574	0.22	ppb		97
27) 1,2-Dichloroethane	4.641	62	6112	0.20	ppb		94
29) Trichloroethene	5.171	130	7176	0.23	ppb		90
30) 1,2-Dichloropropane	5.360	63	5631	0.19	ppb		95
31) Dibromomethane	5.458	174	1675	0.17	ppb	#	91
32) Bromodichloromethane	5.598	83	5416	0.18	ppb		91
33) ~~2-Chloroethyl Vinyl Ether~~	5.860	63	266	2.33	ppb	#	66
34) (cis) 1,3-Dichloropropene	5.982	75	5288	0.17	ppb		97
35) Methyl Isobutyl Ketone	6.122	43	2224	0.21	ppb	#	86
37) Toluene	6.275	91	26096	0.22	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	3652	0.19	ppb		95
40) 1,1,2-Trichloroethane	6.634	97	2870	0.25	ppb	#	81
41) Tetrachloroethene	6.763	166	6500	0.21	ppb		92
42) 1,3-Dichloropropane	6.787	76	4030	0.20	ppb		90
43) 2-Hexanone	6.866	43	1575	0.23	ppb	#	69
44) Dibromochloromethane	6.988	129	2814	0.19	ppb		95

SP 3-28-14

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	1962	0.20	ppb		100
46) Chlorobenzene	7.543	112	13952	0.23	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	3793	0.19	ppb		84
48) Ethylbenzene	7.646	91	25838	0.21	ppb		100
49) m,p-Xylene	7.756	91	35667	0.38	ppb		97
50) o-Xylene	8.128	91	16600	0.19	ppb		100
51) Styrene	8.140	104	11365	0.18	ppb		100
52) Bromoform	8.311	173	1384	0.18	ppb		93
53) Isopropylbenzene	8.476	105	20353	0.19	ppb		96
56) Bromobenzene	8.762	156	4101	0.24	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	1819	0.22	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	1394	0.22	ppb	#	100
59) n-Propylbenzene	8.872	91	23987	0.24	ppb		96
60) 2-Chlorotoluene	8.951	126	4557	0.23	ppb		98
61) 4-Chlorotoluene	9.055	126	4278	0.22	ppb		96
62) 1,3,5-Trimethylbenzene	9.043	105	15766	0.21	ppb		96
63) tert-Butylbenzene	9.353	119	12815	0.22	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	14377	0.20	ppb		97
65) sec-Butylbenzene	9.567	105	18071	0.21	ppb		96
66) 1,3-Dichlorobenzene	9.670	146	6674	0.21	ppb		100
67) p-Isopropyltoluene	9.713	119	14152	0.20	ppb		98
68) 1,4-Dichlorobenzene	9.756	146	7304	0.22	ppb		92
69) 1,2-Dichlorobenzene	10.116	146	4547	0.19	ppb		99
70) n-Butylbenzene	10.109	91	13331	0.20	ppb		99
72) 1,2,4-Trichlorobenzene	11.707	180	1167	0.10	ppb		93
73) Hexachlorobutadiene	11.877	225	1401	0.12	ppb		95
74) Naphthalene	11.944	128	1039	0.61	ppb	#	72
75) 1,2,3-Trichlorobenzene	12.188	180	489	0.21	ppb	#	67

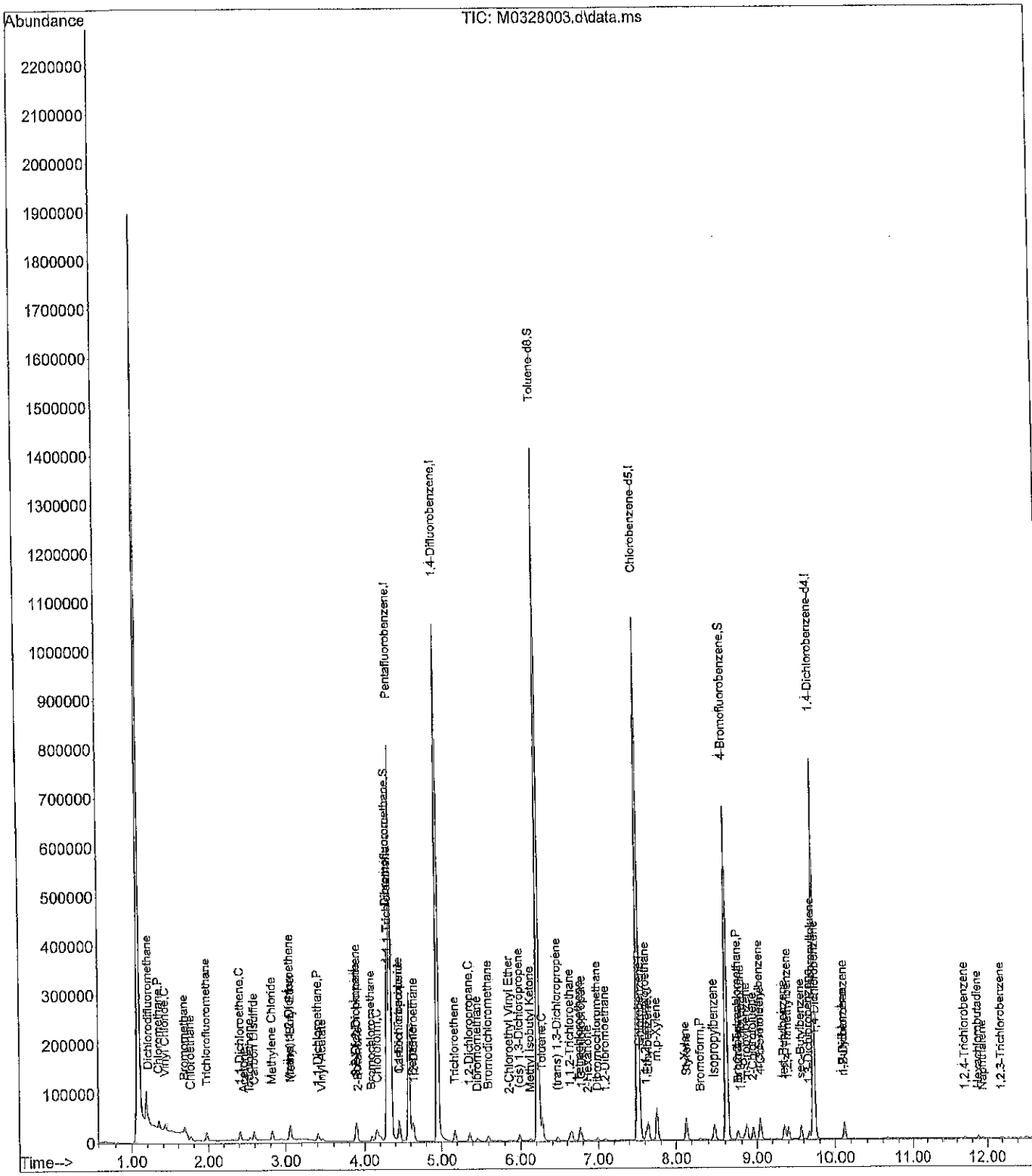
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SD 3.787

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	481933	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	739712	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	582356	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	231509	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	217611	10.05	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.50%				
36) Toluene-d8	6.220	98	864840	9.94	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.40%				
54) 4-Bromofluorobenzene	8.622	95	253379	9.49	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.208	85	32485	0.86	ppb		98
3) Chloromethane	1.343	50	52278	0.91	ppb		94
4) Vinyl Chloride	1.428	62	43937	0.93	ppb		97
5) Bromomethane	1.684	96	23394	1.06	ppb		100
6) Chloroethane	1.769	64	23889	0.96	ppb		100
7) Trichlorofluoromethane	1.977	101	49091	0.95	ppb		97
8) 1,1-Dichloroethene	2.416	61	52907	0.97	ppb		100
9) Acetone	2.470	43	4405	0.76	ppb		99
10) Iodomethane	2.537	142	25915	1.10	ppb		95
11) Carbon Disulfide	2.592	76	83153	0.97	ppb		100
12) Methylene Chloride	2.824	49	46955	0.99	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	52507	0.97	ppb		97
14) Methyl t-Butyl Ether	3.068	73	34289	0.98	ppb		96
15) 1,1-Dichloroethane	3.409	63	61308	0.98	ppb		99
16) Vinyl Acetate	3.458	43	29613	1.27	ppb		98
17) 2,2-Dichloropropane	3.891	77	40125	0.98	ppb		97
18) (cis) 1,2-Dichloroethene	3.897	61	57200	0.99	ppb		99
19) 2-Butanone	3.921	43	5999	1.04	ppb		92
20) Bromochloromethane	4.098	130	11861	0.97	ppb		99
21) Chloroform	4.165	83	48474	0.99	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	47516	0.98	ppb	#	1
24) Carbon Tetrachloride	4.458	117	43733	0.97	ppb		94
25) 1,1-Dichloropropene	4.452	75	39817	0.96	ppb		97
26) Benzene	4.629	78	106694	0.99	ppb		99
27) 1,2-Dichloroethane	4.641	62	30108	1.00	ppb		99
29) Trichloroethene	5.171	130	30865	0.98	ppb		99
30) 1,2-Dichloropropane	5.360	63	29302	0.98	ppb		100
31) Dibromomethane	5.464	174	9426	0.98	ppb		96
32) Bromodichloromethane	5.598	83	30058	1.02	ppb		97
33) 2-Chloroethyl Vinyl Ether	5.860	63	1418	3.82	ppb		99
34) (cis) 1,3-Dichloropropene	5.982	75	28003	0.90	ppb		98
35) Methyl Isobutyl Ketone	6.122	43	9833	0.91	ppb		97
37) Toluene	6.275	91	116964	0.97	ppb		97
39) (trans) 1,3-Dichloropr...	6.470	75	18996	0.93	ppb		96
40) 1,1,2-Trichloroethane	6.634	97	11672	0.96	ppb		94
41) Tetrachloroethene	6.768	166	31504	0.98	ppb		97
42) 1,3-Dichloropropane	6.787	76	20143	0.94	ppb		99
43) 2-Hexanone	6.866	43	7271	1.02	ppb	#	92
44) Dibromochloromethane	6.988	129	15481	0.97	ppb		95

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

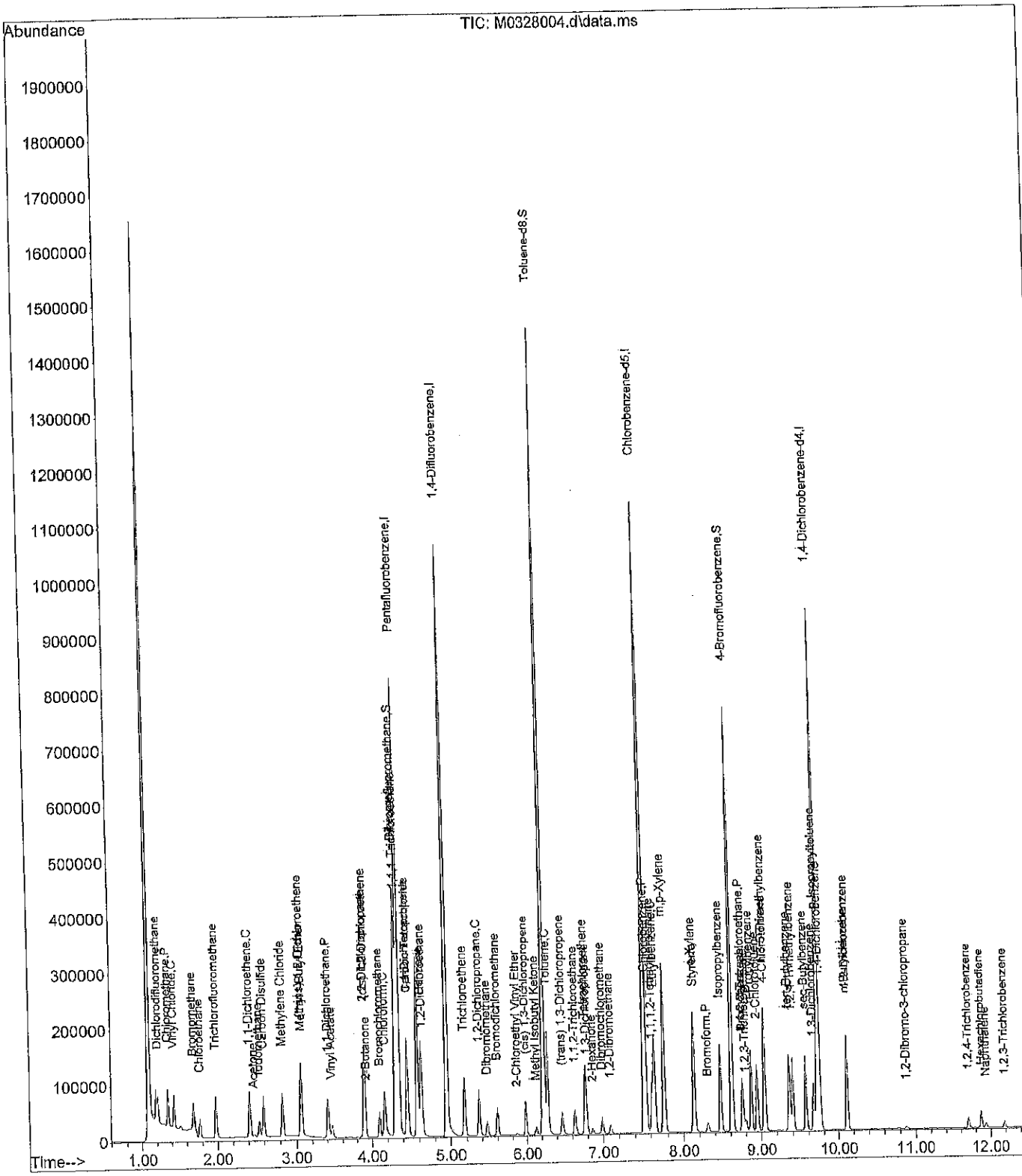
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.091	107	10813	1.03	ppb		89
46) Chlorobenzene	7.543	112	62839	0.97	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	20602	0.97	ppb		97
48) Ethylbenzene	7.646	91	116277	0.89	ppb		100
49) m,p-Xylene	7.756	91	173593	1.77	ppb		100
50) o-Xylene	8.128	91	79577	0.88	ppb		99
51) Styrene	8.140	104	57652	0.86	ppb		100
52) Bromoform	8.311	173	7371	0.89	ppb		96
53) Isopropylbenzene	8.475	105	97419	0.85	ppb		98
56) Bromobenzene	8.762	156	20310	1.04	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	10308	1.07	ppb		93
58) 1,2,3-Trichloropropane	8.798	75	7814	1.06	ppb	#	100
59) n-Propylbenzene	8.872	91	114247	0.97	ppb		99
60) 2-Chlorotoluene	8.951	126	22971	1.01	ppb		99
61) 4-Chlorotoluene	9.055	126	22328	0.99	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	76170	0.87	ppb		99
63) tert-Butylbenzene	9.353	119	59923	0.88	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	73440	0.87	ppb		98
65) sec-Butylbenzene	9.567	105	89955	0.89	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	34360	0.92	ppb		100
67) p-Isopropyltoluene	9.713	119	68086	0.82	ppb		97
68) 1,4-Dichlorobenzene	9.756	146	34860	0.89	ppb		94
69) 1,2-Dichlorobenzene	10.115	146	24567	0.87	ppb		100
70) n-Butylbenzene	10.109	91	63817	0.81	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.883	157	932	0.72	ppb	#	64
72) 1,2,4-Trichlorobenzene	11.706	180	6168	0.46	ppb		90
73) Hexachlorobutadiene	11.883	225	6218	0.47	ppb		97
74) Naphthalene	11.944	128	7514	0.99	ppb	#	94
75) 1,2,3-Trichlorobenzene	12.188	180	3448	0.52	ppb		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	479547	10.00 ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	741239	10.00 ppb		0.00
38) Chlorobenzene-d5	7.518	117	592815	10.00 ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	240183	10.00 ppb		0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	223417	10.37 ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.70%			
36) Toluene-d8	6.220	98	874445	10.03 ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.30%			
54) 4-Bromofluorobenzene	8.622	95	264503	9.74 ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	71435	1.89 ppb		100
3) Chloromethane	1.343	50	111552	1.95 ppb		100
4) Vinyl Chloride	1.428	62	94040	2.00 ppb		99
5) Bromomethane	1.690	96	44871	2.05 ppb		99
6) Chloroethane	1.769	64	48789	1.97 ppb		96
7) Trichlorofluoromethane	1.977	101	101236	1.97 ppb		99
8) 1,1-Dichloroethene	2.416	61	107339	1.98 ppb		100
9) Acetone	2.470	43	9060	2.24 ppb		96
10) Iodomethane	2.538	142	60687	2.01 ppb		99
11) Carbon Disulfide	2.592	76	171279	2.00 ppb		97
12) Methylene Chloride	2.824	49	93388	1.98 ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	110387	2.06 ppb		100
14) Methyl t-Butyl Ether	3.068	73	70253	2.02 ppb		98
15) 1,1-Dichloroethane	3.409	63	125922	2.02 ppb		98
16) Vinyl Acetate	3.458	43	54537	1.97 ppb		98
17) 2,2-Dichloropropane	3.891	77	80592	1.97 ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	114722	1.99 ppb		99
19) 2-Butanone	3.921	43	12367	2.16 ppb		91
20) Bromochloromethane	4.098	130	24764	2.04 ppb		97
21) Chloroform	4.165	83	98372	2.01 ppb		98
22) 1,1,1-Trichloroethane	4.318	97	93941	1.95 ppb	#	1
24) Carbon Tetrachloride	4.458	117	88301	1.97 ppb		100
25) 1,1-Dichloropropene	4.452	75	82043	1.99 ppb		100
26) Benzene	4.629	78	213449	1.99 ppb		100
27) 1,2-Dichloroethane	4.641	62	61512	2.06 ppb		99
29) Trichloroethene	5.171	130	64112	2.02 ppb		93
30) 1,2-Dichloropropane	5.360	63	59895	2.01 ppb		100
31) Dibromomethane	5.464	174	20052	2.08 ppb		99
32) Bromodichloromethane	5.598	83	59547	2.02 ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	3284	6.24 ppb		100
34) (cis) 1,3-Dichloropropene	5.982	75	59196	1.90 ppb		99
35) Methyl Isobutyl Ketone	6.122	43	22165	2.05 ppb		98
37) Toluene	6.275	91	232630	1.92 ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	40523	1.94 ppb		100
40) 1,1,2-Trichloroethane	6.634	97	23818	1.92 ppb		94
41) Tetrachloroethene	6.768	166	63251	1.94 ppb		98
42) 1,3-Dichloropropane	6.787	76	43185	1.98 ppb		99
43) 2-Hexanone	6.866	43	13779	1.89 ppb		99
44) Dibromochloromethane	6.988	129	31574	1.95 ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

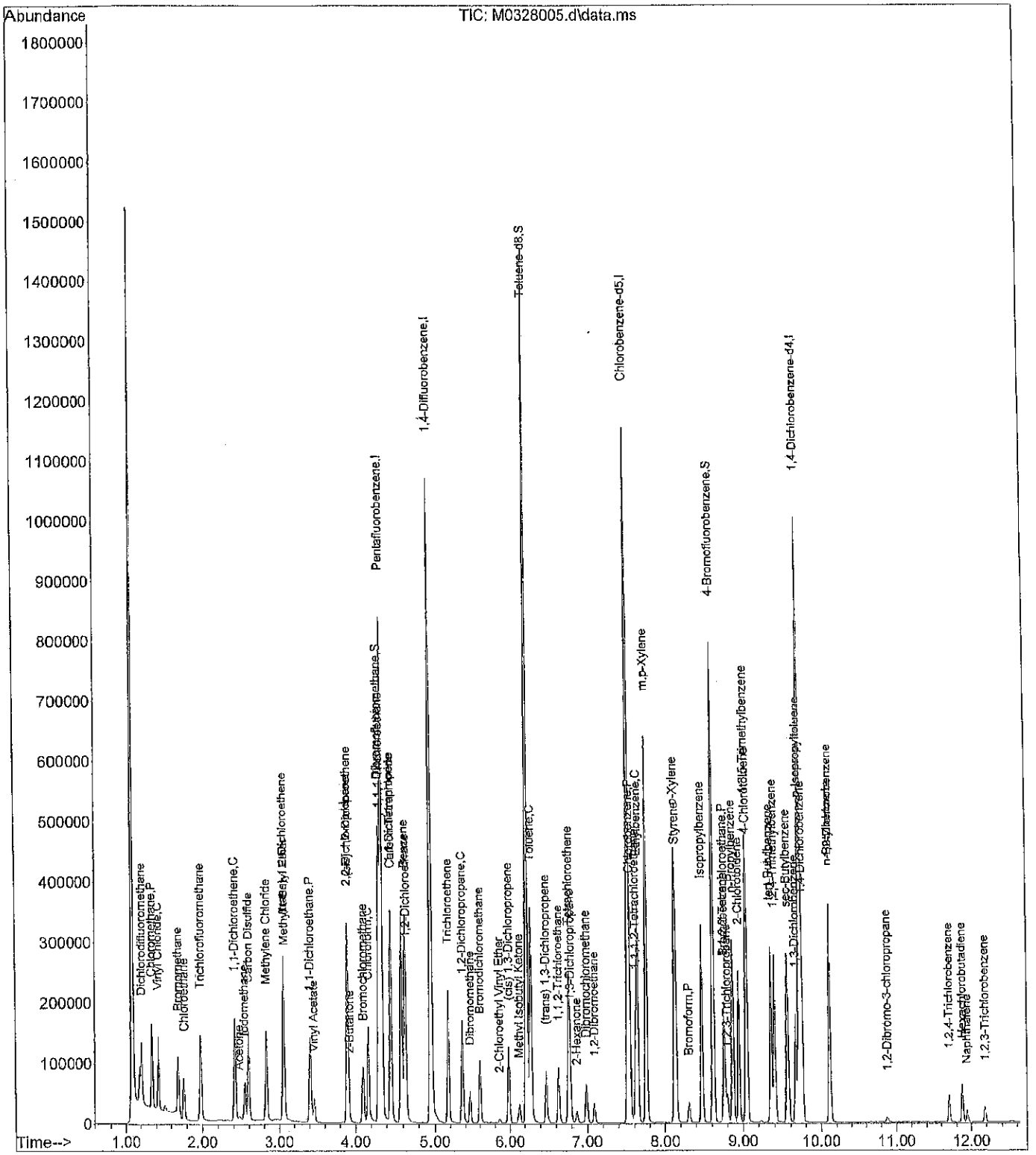
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	22108	2.07	ppb		94
46) Chlorobenzene	7.543	112	126905	1.93	ppb		98
47) 1,1,1,2-Tetrachloroethane	7.616	133	40634	1.89	ppb		97
48) Ethylbenzene	7.646	91	244080	1.84	ppb		99
49) m,p-Xylene	7.756	91	366249	3.67	ppb		100
50) o-Xylene	8.128	91	168553	1.82	ppb		99
51) Styrene	8.140	104	125222	1.84	ppb		100
52) Bromoform	8.311	173	15623	1.86	ppb		98
53) Isopropylbenzene	8.475	105	207918	1.79	ppb		99
56) Bromobenzene	8.762	156	41070	2.02	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	20399	2.05	ppb		97
58) 1,2,3-Trichloropropane	8.799	75	17704	2.32	ppb	#	100
59) n-Propylbenzene	8.872	91	236825	1.94	ppb		99
60) 2-Chlorotoluene	8.951	126	46452	1.98	ppb		97
61) 4-Chlorotoluene	9.055	126	46002	1.98	ppb		95
62) 1,3,5-Trimethylbenzene	9.042	105	172160	1.90	ppb		100
63) tert-Butylbenzene	9.353	119	133577	1.88	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	156865	1.80	ppb		98
65) sec-Butylbenzene	9.567	105	191336	1.83	ppb		100
66) 1,3-Dichlorobenzene	9.670	146	73967	1.92	ppb		96
67) p-Isopropyltoluene	9.713	119	152932	1.78	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	76190	1.87	ppb		96
69) 1,2-Dichlorobenzene	10.115	146	52952	1.80	ppb		99
70) n-Butylbenzene	10.109	91	135827	1.67	ppb		98
71) 1,2-Dibromo-3-chloropr...	10.883	157	2368	1.76	ppb		98
72) 1,2,4-Trichlorobenzene	11.706	180	14738	1.05	ppb		94
73) Hexachlorobutadiene	11.883	225	13288	0.97	ppb		99
74) Naphthalene	11.944	128	16224	1.48	ppb		97
75) 1,2,3-Trichlorobenzene	12.188	180	8510	1.04	ppb		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	487403	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	747722	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	596122	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	250793	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	226293	10.34	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.40%				
36) Toluene-d8	6.220	98	883353	10.04	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.40%				
54) 4-Bromofluorobenzene	8.616	95	269266	9.86	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	175706	4.58	ppb		100
3) Chloromethane	1.343	50	272665	4.68	ppb		99
4) Vinyl Chloride	1.428	62	233677	4.89	ppb		100
5) Bromomethane	1.684	96	107522	4.84	ppb		99
6) Chloroethane	1.770	64	119788	4.76	ppb		100
7) Trichlorofluoromethane	1.977	101	251859	4.81	ppb		99
8) 1,1-Dichloroethene	2.416	61	271961	4.94	ppb		98
9) Acetone	2.471	43	19243	5.36	ppb		100
10) Iodomethane	2.538	142	171354	4.82	ppb		99
11) Carbon Disulfide	2.593	76	428232	4.92	ppb		100
12) Methylene Chloride	2.824	49	227594	4.76	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	265907	4.87	ppb		98
14) Methyl t-Butyl Ether	3.068	73	176485	4.99	ppb		98
15) 1,1-Dichloroethane	3.409	63	313941	4.94	ppb		98
16) Vinyl Acetate	3.458	43	132036	4.05	ppb		100
17) 2,2-Dichloropropane	3.891	77	198435	4.78	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	289717	4.95	ppb		100
19) 2-Butanone	3.922	43	29280	5.04	ppb		95
20) Bromochloromethane	4.098	130	61061	4.94	ppb		97
21) Chloroform	4.165	83	248538	5.00	ppb		100
22) 1,1,1-Trichloroethane	4.318	97	236699	4.83	ppb	#	48
24) Carbon Tetrachloride	4.458	117	217779	4.78	ppb		99
25) 1,1-Dichloropropene	4.452	75	201088	4.81	ppb		99
26) Benzene	4.629	78	539722	4.94	ppb		100
27) 1,2-Dichloroethane	4.641	62	152728	5.02	ppb		100
29) Trichloroethene	5.171	130	158883	4.97	ppb		97
30) 1,2-Dichloropropane	5.360	63	149194	4.96	ppb		98
31) Dibromomethane	5.464	174	48876	5.02	ppb		96
32) Bromodichloromethane	5.598	83	146557	4.93	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	7478	11.60	ppb	#	90
34) (cis) 1,3-Dichloropropene	5.982	75	153320	4.87	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	53853	4.94	ppb		96
37) Toluene	6.275	91	581598	4.77	ppb		98
39) (trans) 1,3-Dichloropr...	6.470	75	101688	4.84	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	59584	4.77	ppb		96
41) Tetrachloroethene	6.769	166	153550	4.68	ppb		99
42) 1,3-Dichloropropane	6.787	76	109881	5.00	ppb		100
43) 2-Hexanone	6.866	43	36571	4.99	ppb	#	97
44) Dibromochloromethane	6.988	129	80368	4.94	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

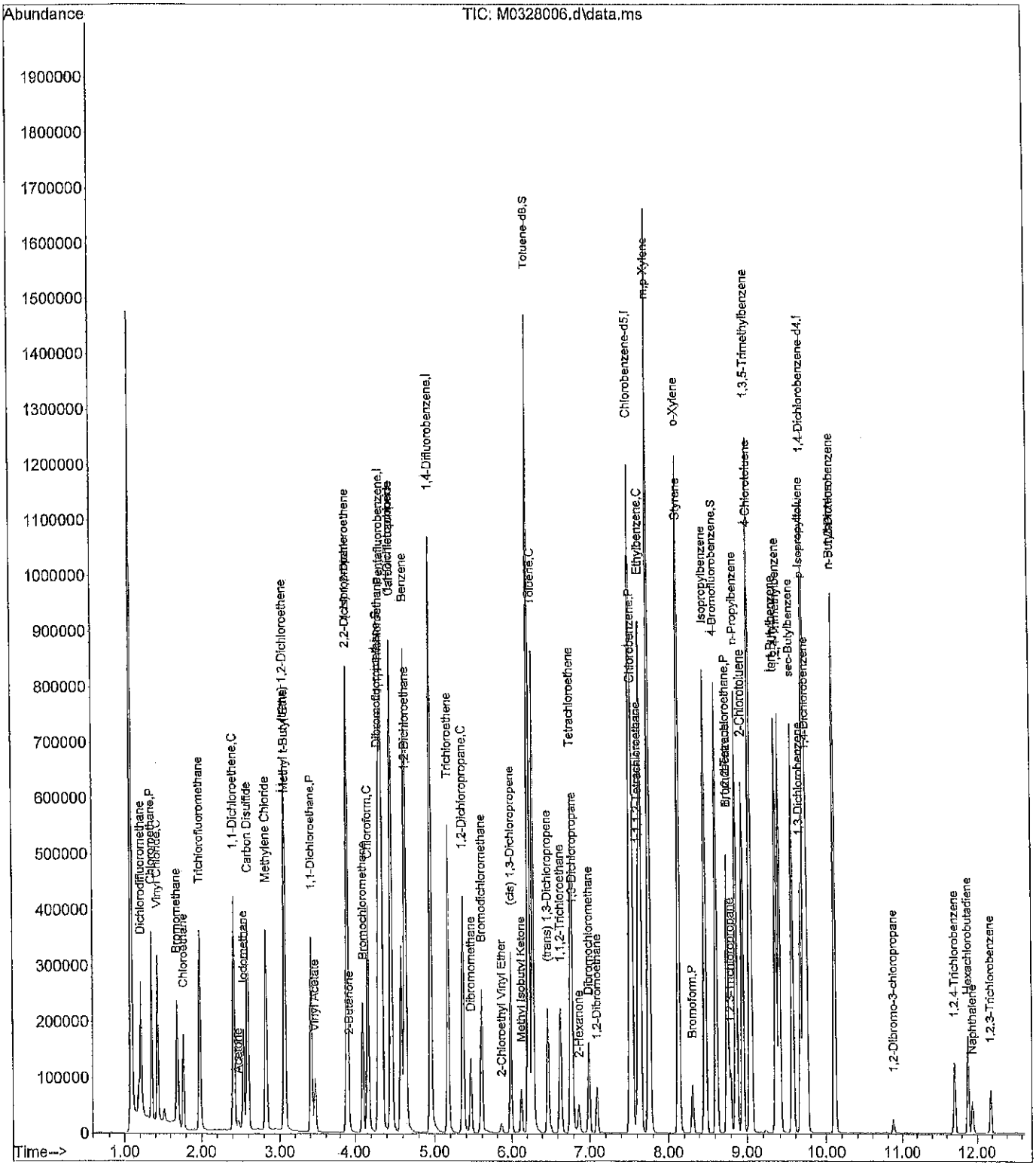
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	55408	5.15	ppb		94
46) Chlorobenzene	7.543	112	312120	4.72	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	105314	4.86	ppb		100
48) Ethylbenzene	7.646	91	615237	4.61	ppb		100
49) m,p-Xylene	7.756	91	948174	9.45	ppb		100
50) o-Xylene	8.128	91	431278	4.64	ppb		99
51) Styrene	8.140	104	328797	4.81	ppb		100
52) Bromoform	8.311	173	41308	4.89	ppb		97
53) Isopropylbenzene	8.476	105	537723	4.60	ppb		100
56) Bromobenzene	8.762	156	106237	5.00	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	53508	5.15	ppb		95
58) 1,2,3-Trichloropropane	8.799	75	42362	5.32	ppb	#	100
59) n-Propylbenzene	8.872	91	619715	4.86	ppb		99
60) 2-Chlorotoluene	8.951	126	118651	4.84	ppb		99
61) 4-Chlorotoluene	9.055	126	119653	4.92	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	448413	4.74	ppb		99
63) tert-Butylbenzene	9.353	119	348521	4.70	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	423815	4.65	ppb		100
65) sec-Butylbenzene	9.567	105	506584	4.64	ppb		100
66) 1,3-Dichlorobenzene	9.670	146	186299	4.62	ppb		98
67) p-Isopropyltoluene	9.713	119	398736	4.45	ppb		98
68) 1,4-Dichlorobenzene	9.756	146	196227	4.62	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	139284	4.54	ppb		98
70) n-Butylbenzene	10.109	91	366974	4.31	ppb		100
71) 1,2-Dibromo-3-chloropr...	10.884	157	6040	4.30	ppb		92
72) 1,2,4-Trichlorobenzene	11.707	180	40513	2.76	ppb		97
73) Hexachlorobutadiene	11.883	225	36435	2.56	ppb		98
74) Naphthalene	11.944	128	46161	3.10	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	25509	2.71	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	489227	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	759757	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	599575	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246718	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	222542	10.13	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 101.30%				
36) Toluene-d8	6.220	98	893363	10.00	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.00%				
54) 4-Bromofluorobenzene	8.616	95	271986	9.90	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	358326	9.31	ppb		100
3) Chloromethane	1.343	50	555937	9.51	ppb		99
4) Vinyl Chloride	1.428	62	483276	10.07	ppb		100
5) Bromomethane	1.690	96	219911	9.85	ppb		100
6) Chloroethane	1.770	64	247386	9.79	ppb		100
7) Trichlorofluoromethane	1.977	101	523334	9.97	ppb		100
8) 1,1-Dichloroethene	2.416	61	557386	10.08	ppb		99
9) Acetone	2.471	43	34774	10.16	ppb		99
10) Iodomethane	2.538	142	368612	9.85	ppb		99
11) Carbon Disulfide	2.593	76	884927	10.14	ppb		99
12) Methylene Chloride	2.824	49	460832	9.60	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	560950	10.24	ppb		100
14) Methyl t-Butyl Ether	3.068	73	348111	9.80	ppb		99
15) 1,1-Dichloroethane	3.410	63	642292	10.08	ppb		100
16) Vinyl Acetate	3.458	43	253649	7.34	ppb		99
17) 2,2-Dichloropropane	3.897	77	412258	9.89	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	592869	10.09	ppb		99
19) 2-Butanone	3.922	43	56987	9.78	ppb		98
20) Bromochloromethane	4.098	130	125464	10.11	ppb		99
21) Chloroform	4.165	83	500093	10.03	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	488995	9.94	ppb		98
24) Carbon Tetrachloride	4.458	117	448921	9.82	ppb		98
25) 1,1-Dichloropropene	4.452	75	415631	9.89	ppb		99
26) Benzene	4.629	78	1106258	10.09	ppb		99
27) 1,2-Dichloroethane	4.641	62	310436	10.17	ppb		100
29) Trichloroethene	5.171	130	328989	10.12	ppb		99
30) 1,2-Dichloropropane	5.360	63	301712	9.86	ppb		99
31) Dibromomethane	5.464	174	97928	9.89	ppb		99
32) Bromodichloromethane	5.598	83	300904	9.96	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	14914	20.86	ppb	#	88
34) (cis) 1,3-Dichloropropene	5.982	75	316852	9.91	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	105947	9.57	ppb		99
37) Toluene	6.275	91	1190855	9.61	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	217027	10.28	ppb		98
40) 1,1,2-Trichloroethane	6.635	97	120206	9.58	ppb		97
41) Tetrachloroethene	6.769	166	321992	9.76	ppb		99
42) 1,3-Dichloropropane	6.787	76	222149	10.05	ppb		99
43) 2-Hexanone	6.866	43	70181	9.53	ppb		98
44) Dibromochloromethane	6.988	129	163728	10.00	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

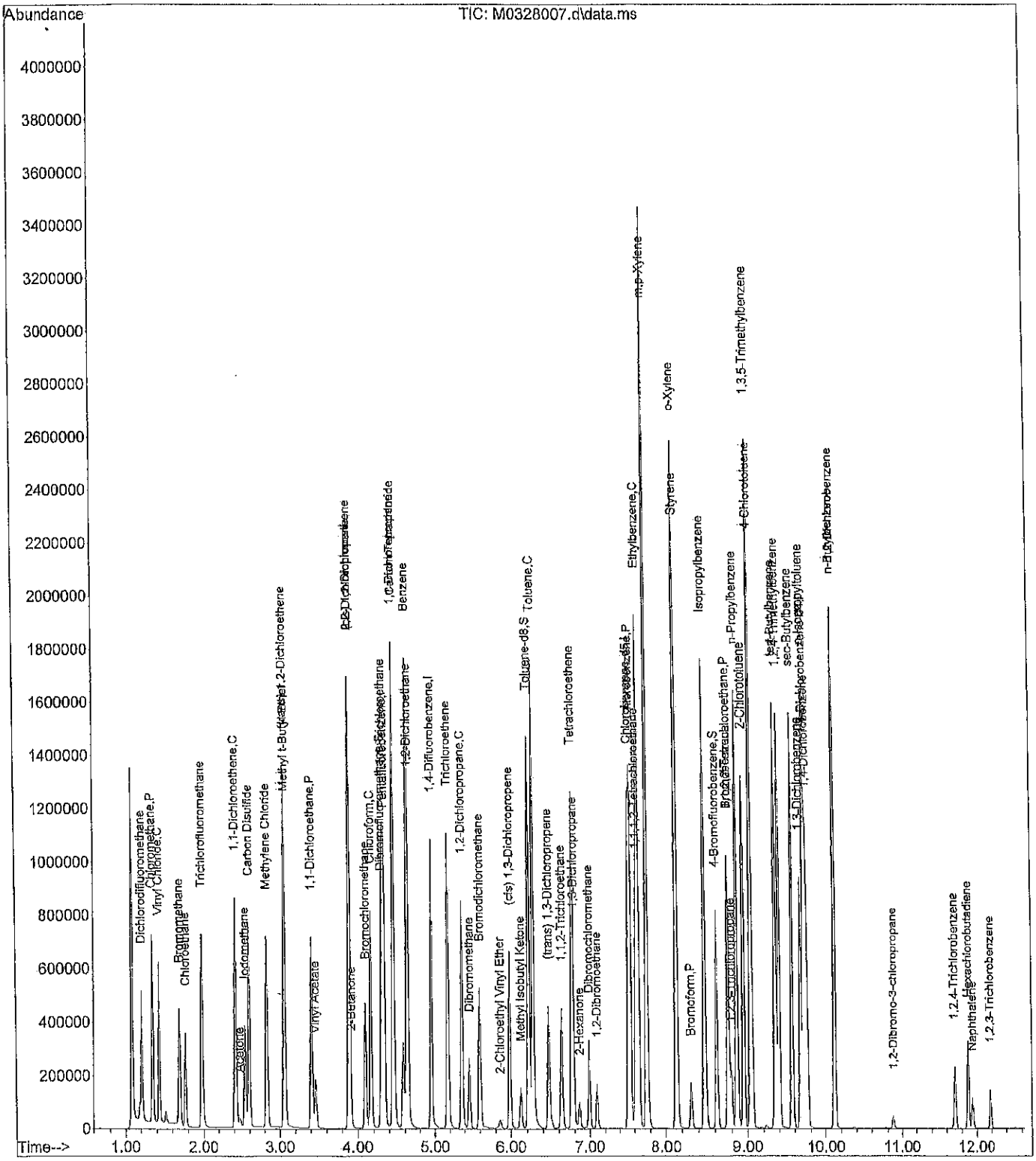
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	109725	10.14	ppb		97
46) Chlorobenzene	7.543	112	647533	9.74	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	217287	9.97	ppb		98
48) Ethylbenzene	7.646	91	1313400	9.79	ppb		100
49) m,p-Xylene	7.756	91	1993585	19.75	ppb		99
50) o-Xylene	8.128	91	903632	9.66	ppb		98
51) Styrene	8.140	104	688761	10.02	ppb		100
52) Bromoform	8.311	173	83704	9.85	ppb		97
53) Isopropylbenzene	8.476	105	1147125	9.75	ppb		100
56) Bromobenzene	8.762	156	215852	10.33	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	102118	9.98	ppb		99
58) 1,2,3-Trichloropropane	8.799	75	82731	10.56	ppb	#	100
59) n-Propylbenzene	8.872	91	1318888	10.52	ppb		99
60) 2-Chlorotoluene	8.951	126	252805	10.48	ppb		98
61) 4-Chlorotoluene	9.055	126	249463	10.43	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	956130	10.27	ppb		99
63) tert-Butylbenzene	9.353	119	765683	10.50	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	885124	9.88	ppb		99
65) sec-Butylbenzene	9.567	105	1090861	10.15	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	380986	9.60	ppb		99
67) p-Isopropyltoluene	9.713	119	856914	9.72	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	396253	9.49	ppb		99
69) 1,2-Dichlorobenzene	10.116	146	278161	9.21	ppb		99
70) n-Butylbenzene	10.109	91	770172	9.19	ppb		100
71) 1,2-Dibromo-3-chloropr...	10.884	157	12386	8.97	ppb		87
72) 1,2,4-Trichlorobenzene	11.701	180	77070	5.34	ppb		99
73) Hexachlorobutadiene	11.883	225	69390	4.95	ppb		98
74) Naphthalene	11.944	128	90183	5.61	ppb		98
75) 1,2,3-Trichlorobenzene	12.182	180	49016	5.15	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	497601	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	768052	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	607515	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	252975	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	229055	10.25	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.50%				
36) Toluene-d8	6.220	98	909694	10.07	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.70%				
54) 4-Bromofluorobenzene	8.622	95	277129	9.95	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.50%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	1121507	28.64	ppb		99
3) Chloromethane	1.343	50	1561206	26.25	ppb		100
4) Vinyl Chloride	1.428	62	1328160	27.20	ppb		100
5) Bromomethane	1.684	96	581881	25.64	ppb		99
6) Chloroethane	1.770	64	655545	25.52	ppb		99
7) Trichlorofluoromethane	1.977	101	1389716	26.02	ppb		99
8) 1,1-Dichloroethene	2.416	61	1474120	26.22	ppb		99
9) Acetone	2.471	43	87736	26.13	ppb		98
10) Iodomethane	2.538	142	1029759	26.31	ppb		98
11) Carbon Disulfide	2.593	76	2384649	26.86	ppb		99
12) Methylene Chloride	2.824	49	1201171	24.59	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	1480100	26.56	ppb		99
14) Methyl t-Butyl Ether	3.068	73	917317	25.39	ppb		99
15) 1,1-Dichloroethane	3.410	63	1697554	26.18	ppb		99
16) Vinyl Acetate	3.458	43	677905	18.53	ppb		99
17) 2,2-Dichloropropane	3.897	77	1075056	25.36	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	1593641	26.66	ppb		100
19) 2-Butanone	3.922	43	148430	25.04	ppb		98
20) Bromochloromethane	4.098	130	328851	26.05	ppb		99
21) Chloroform	4.165	83	1322341	26.07	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	1293343	25.86	ppb	#	68
24) Carbon Tetrachloride	4.458	117	1213430	26.09	ppb		100
25) 1,1-Dichloropropene	4.452	75	1117703	26.16	ppb		100
26) Benzene	4.629	78	2935857	26.34	ppb		99
27) 1,2-Dichloroethane	4.641	62	810173	26.11	ppb		99
29) Trichloroethene	5.171	130	884095	26.91	ppb		97
30) 1,2-Dichloropropane	5.360	63	807229	26.10	ppb		99
31) Dibromomethane	5.464	174	260025	25.99	ppb		98
32) Bromodichloromethane	5.598	83	801089	26.22	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	43191	56.05	ppb	#	86
34) (cis) 1,3-Dichloropropene	5.982	75	878404	27.19	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	291919	26.08	ppb		98
37) Toluene	6.281	91	3203081	25.57	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	580541	27.13	ppb		98
40) 1,1,2-Trichloroethane	6.634	97	324195	25.49	ppb		96
41) Tetrachloroethene	6.769	166	854911	25.57	ppb		100
42) 1,3-Dichloropropane	6.787	76	586797	26.20	ppb		100
43) 2-Hexanone	6.866	43	200018	26.80	ppb		100
44) Dibromochloromethane	6.988	129	444656	26.79	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

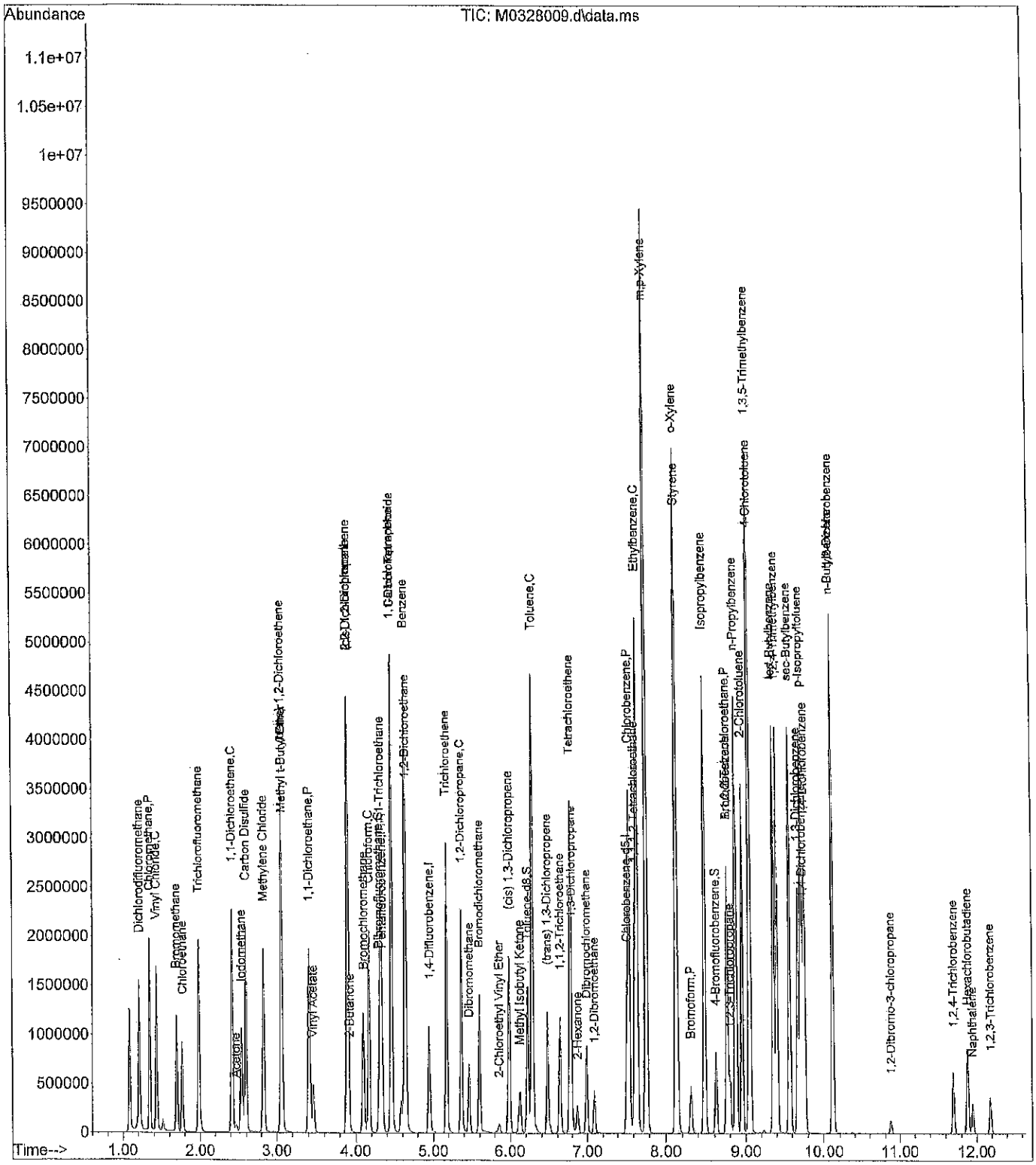
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	1,2-Dibromoethane	7.092	107	292386	26.66	ppb		99
46)	Chlorobenzene	7.543	112	1729622	25.68	ppb		100
47)	1,1,1,2-Tetrachloroethane	7.616	133	576009	26.08	ppb		99
48)	Ethylbenzene	7.646	91	3585151	26.38	ppb		99
49)	m,p-Xylene	7.756	91	5434085	53.13	ppb		99
50)	o-Xylene	8.128	91	2466541	26.02	ppb		99
51)	Styrene	8.140	104	1887824	27.11	ppb		100
52)	Bromoform	8.311	173	232242	26.97	ppb		99
53)	Isopropylbenzene	8.476	105	3134059	26.30	ppb		100
56)	Bromobenzene	8.762	156	592396	27.65	ppb		99
57)	1,1,2,2-Tetrachloroethane	8.762	83	278507	26.56	ppb		97
58)	1,2,3-Trichloropropane	8.799	75	221012	27.51	ppb	#	100
59)	n-Propylbenzene	8.872	91	3571653	27.78	ppb		100
60)	2-Chlorotoluene	8.951	126	685447	27.70	ppb		98
61)	4-Chlorotoluene	9.055	126	667612	27.22	ppb		100
62)	1,3,5-Trimethylbenzene	9.043	105	2605407	27.30	ppb		99
63)	tert-Butylbenzene	9.353	119	2039103	27.27	ppb		100
64)	1,2,4-Trimethylbenzene	9.402	105	2384690	25.96	ppb		100
65)	sec-Butylbenzene	9.567	105	2940858	26.70	ppb		99
66)	1,3-Dichlorobenzene	9.670	146	1018598	25.04	ppb		99
67)	p-Isopropyltoluene	9.713	119	2342593	25.92	ppb		100
68)	1,4-Dichlorobenzene	9.756	146	1061821	24.81	ppb		99
69)	1,2-Dichlorobenzene	10.116	146	755745	24.41	ppb		100
70)	n-Butylbenzene	10.109	91	2095716	24.39	ppb		99
71)	1,2-Dibromo-3-chloropr...	10.884	157	35703	25.21	ppb		95
72)	1,2,4-Trichlorobenzene	11.707	180	210257	14.22	ppb		98
73)	Hexachlorobutadiene	11.883	225	183636	12.77	ppb		99
74)	Naphthalene	11.944	128	250957	14.31	ppb		100
75)	1,2,3-Trichlorobenzene	12.182	180	124247	12.52	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	522687	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	794397	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	648063	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	271326	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	239856	10.22	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.20%				
36) Toluene-d8	6.220	98	954439	10.21	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 102.10%				
54) 4-Bromofluorobenzene	8.622	95	292946	9.86	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	2263976	55.05	ppb		99
3) Chloromethane	1.343	50	3189613	51.05	ppb		100
4) Vinyl Chloride	1.428	62	2726670	53.16	ppb		99
5) Bromomethane	1.690	96	1188547	49.85	ppb		99
6) Chloroethane	1.769	64	1341140	49.70	ppb		99
7) Trichlorofluoromethane	1.977	101	2822826	50.31	ppb		100
8) 1,1-Dichloroethene	2.416	61	3002296	50.83	ppb		98
9) Acetone	2.477	43	169002	48.45	ppb		98
10) Iodomethane	2.538	142	2055765	49.63	ppb		97
11) Carbon Disulfide	2.592	76	4931028	52.87	ppb		100
12) Methylene Chloride	2.824	49	2461328	47.97	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	3034587	51.85	ppb		99
14) Methyl t-Butyl Ether	3.068	73	1954424	51.50	ppb		99
15) 1,1-Dichloroethane	3.409	63	3499793	51.39	ppb		99
16) Vinyl Acetate	3.464	43	1988880	50.94	ppb		99
17) 2,2-Dichloropropane	3.897	77	2173704	48.82	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	3306469	52.65	ppb		100
19) 2-Butanone	3.921	43	294527	47.30	ppb		98
20) Bromochloromethane	4.098	130	687090	51.81	ppb		98
21) Chloroform	4.165	83	2720414	51.07	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	2654495	50.52	ppb	#	58
24) Carbon Tetrachloride	4.458	117	2489450	50.96	ppb		100
25) 1,1-Dichloropropene	4.458	75	2319305	51.68	ppb		99
26) Benzene	4.629	78	6103832	52.13	ppb		98
27) 1,2-Dichloroethane	4.641	62	1656157	50.81	ppb		99
29) Trichloroethene	5.171	130	1726990	50.82	ppb		99
30) 1,2-Dichloropropane	5.360	63	1670462	52.23	ppb		99
31) Dibromomethane	5.464	174	532261	51.43	ppb		98
32) Bromodichloromethane	5.598	83	1679673	53.15	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	102169	125.64	ppb	#	89
34) (cis) 1,3-Dichloropropene	5.982	75	1826617	54.67	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	644949	55.71	ppb		98
37) Toluene	6.281	91	6709086	51.79	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	1239067	54.28	ppb		98
40) 1,1,2-Trichloroethane	6.634	97	674955	49.75	ppb		97
41) Tetrachloroethene	6.768	166	1764560	49.48	ppb		99
42) 1,3-Dichloropropane	6.787	76	1220959	51.11	ppb		99
43) 2-Hexanone	6.866	43	420528	52.83	ppb		98
44) Dibromochloromethane	6.988	129	950233	53.68	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

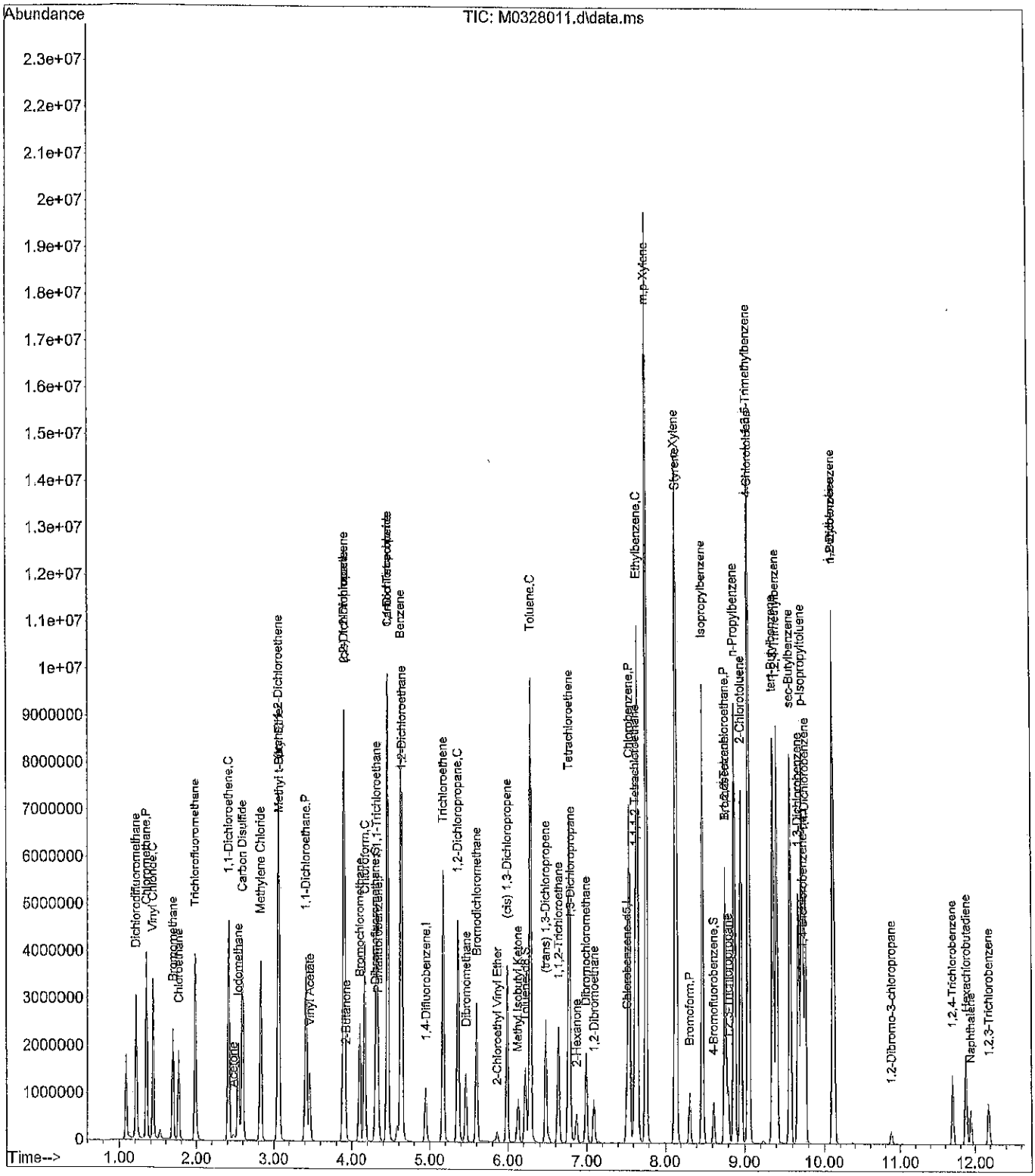
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	599789	51.27	ppb		100
46) Chlorobenzene	7.543	112	3639368	50.66	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.622	133	1226756	52.08	ppb		99
48) Ethylbenzene	7.646	91	7483755	51.62	ppb		99
49) m,p-Xylene	7.756	91	11469508	105.12	ppb		99
50) o-Xylene	8.128	91	5194099	51.37	ppb		99
51) Styrene	8.140	104	4005725	53.92	ppb		100
52) Bromoform	8.311	173	511778	55.72	ppb		97
53) Isopropylbenzene	8.475	105	6542524	51.46	ppb		100
56) Bromobenzene	8.762	156	1232656	53.64	ppb		100
57) 1,1,2,2-Tetrachloroethane	8.762	83	621739	55.28	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	462707	53.70	ppb	#	100
59) n-Propylbenzene	8.872	91	7452772	54.05	ppb		99
60) 2-Chlorotoluene	8.951	126	1400536	52.77	ppb		98
61) 4-Chlorotoluene	9.055	126	1411549	53.66	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	5458502	53.32	ppb		100
63) tert-Butylbenzene	9.353	119	4243887	52.91	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	5034056	51.09	ppb		100
65) sec-Butylbenzene	9.567	105	6127669	51.87	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	2161176	49.54	ppb		99
67) p-Isopropyltoluene	9.713	119	4907139	50.62	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	2245473	48.92	ppb		98
69) 1,2-Dichlorobenzene	10.115	146	1619215	48.77	ppb		100
70) n-Butylbenzene	10.115	91	4472832	48.54	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.883	157	75602	49.77	ppb		94
72) 1,2,4-Trichlorobenzene	11.700	180	482632	30.43	ppb		99
73) Hexachlorobutadiene	11.883	225	393787	25.53	ppb		98
74) Naphthalene	11.944	128	596197	31.03	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	286773	26.78	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	510461	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	773794	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	619866	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	260824	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	233640	10.05	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.50%			
36) Toluene-d8	6.220	98	922244	10.11	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 101.10%			
54) 4-Bromofluorobenzene	8.622	95	278743	10.13	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 101.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	329413	8.41	ppb	100
3) Chloromethane	1.343	50	597280	9.87	ppb	100
4) Vinyl Chloride	1.428	62	501584	9.84	ppb	100
5) Bromomethane	1.690	96	230195	9.50	ppb	98
6) Chloroethane	1.769	64	257346	9.62	ppb	99
7) Trichlorofluoromethane	1.977	101	559983	10.20	ppb	99
8) 1,1-Dichloroethene	2.416	61	639672	10.90	ppb	100
9) Acetone	2.483	43	36530	10.23	ppb	99
10) Iodomethane	2.538	142	373007	9.48	ppb	99
11) Carbon Disulfide	2.592	76	935588	10.03	ppb	100
12) Methylene Chloride	2.824	49	504778	10.00	ppb	99
13) (trans) 1,2-Dichloroet...	3.056	61	595161	10.07	ppb	99
14) Methyl t-Butyl Ether	3.068	73	395430	10.62	ppb	100
15) 1,1-Dichloroethane	3.409	63	704461	10.46	ppb	99
16) Vinyl Acetate	3.464	43	172935	6.08	ppb	100
17) 2,2-Dichloropropane	3.897	77	408962	9.51	ppb	100
18) (cis) 1,2-Dichloroethene	3.897	61	638476	10.27	ppb	100
19) 2-Butanone	3.921	43	58497	9.47	ppb	98
20) Bromochloromethane	4.098	130	139022	10.67	ppb	98
21) Chloroform	4.165	83	549665	10.33	ppb	99
22) 1,1,1-Trichloroethane	4.318	97	536813	10.46	ppb	95
24) Carbon Tetrachloride	4.458	117	499537	10.42	ppb	97
25) 1,1-Dichloropropene	4.452	75	448750	10.09	ppb	99
26) Benzene	4.629	78	1210361	10.35	ppb	100
27) 1,2-Dichloroethane	4.641	62	336423	10.39	ppb	99
29) Trichloroethene	5.171	130	378291	11.08	ppb	99
30) 1,2-Dichloropropane	5.360	63	326363	10.48	ppb	99
31) Dibromomethane	5.464	174	111837	11.18	ppb	99
32) Bromodichloromethane	5.598	83	338886	10.94	ppb	98
33) 2-Chloroethyl Vinyl Ether	5.860	63	15917	9.55	ppb	99
34) (cis) 1,3-Dichloropropene	5.982	75	343393	10.79	ppb	99
35) Methyl Isobutyl Ketone	6.122	43	110853	9.73	ppb	98
37) Toluene	6.281	91	1303383	10.35	ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	231090	10.59	ppb	100
40) 1,1,2-Trichloroethane	6.634	97	131800	10.05	ppb	99
41) Tetrachloroethene	6.769	166	351520	10.39	ppb	99
42) 1,3-Dichloropropane	6.787	76	240647	10.55	ppb	99
43) 2-Hexanone	6.866	43	73055	9.33	ppb	100
44) Dibromochloromethane	6.988	129	187880	11.08	ppb	98

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration

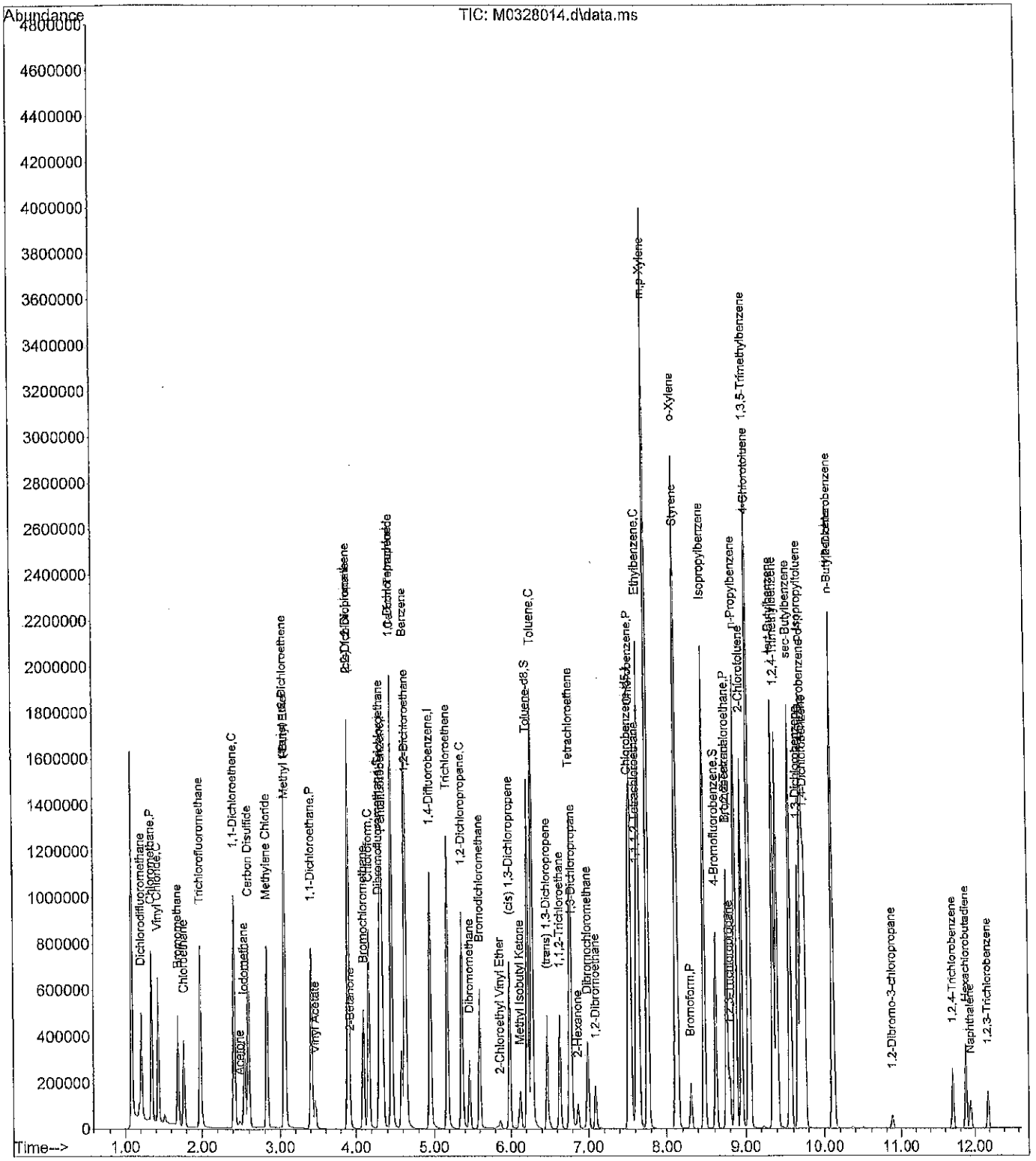
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	121746	10.62	ppb		99
46) Chlorobenzene	7.543	112	777358	11.26	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	235590	10.59	ppb		99
48) Ethylbenzene	7.646	91	1429843	10.55	ppb		100
49) m,p-Xylene	7.756	91	2249857	22.19	ppb		99
50) o-Xylene	8.128	91	1087120	11.73	ppb		100
51) Styrene	8.140	104	755347	10.94	ppb		100
52) Bromoform	8.311	173	92427	10.74	ppb		98
53) Isopropylbenzene	8.475	105	1357068	11.74	ppb		99
56) Bromobenzene	8.762	156	244612	10.36	ppb		97
57) 1,1,2,2-Tetrachloroethane	8.762	83	109511	9.58	ppb		96
58) 1,2,3-Trichloropropane	8.799	75	94450	10.47	ppb	#	100
59) n-Propylbenzene	8.872	91	1568963	11.28	ppb		99
60) 2-Chlorotoluene	8.951	126	303671	11.33	ppb		100
61) 4-Chlorotoluene	9.055	126	300275	11.41	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	1039946	10.55	ppb		99
63) tert-Butylbenzene	9.353	119	902330	11.62	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	957567	10.48	ppb		99
65) sec-Butylbenzene	9.567	105	1290528	11.52	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	459444	11.27	ppb		99
67) p-Isopropyltoluene	9.713	119	1006766	11.42	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	433737	10.18	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	343625	11.62	ppb		98
70) n-Butylbenzene	10.109	91	840590	10.44	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	14660	11.24	ppb		97
72) 1,2,4-Trichlorobenzene	11.707	180	86555	10.60	ppb		98
73) Hexachlorobutadiene	11.883	225	75185	9.84	ppb		98
74) Naphthalene	11.944	128	98546	10.16	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	52321	9.87	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	10.000	10.000	0.0	120	0.00
2		Dichlorodifluoromethane	10.000	6.849	31.5#	86	0.00
3	P	Chloromethane	10.000	8.668	13.3	108	0.00
4	C	Vinyl Chloride	10.000	8.519	14.8#	103	0.00
5		Bromomethane	10.000	8.372	16.3	106	0.00
6		Chloroethane	10.000	8.238	17.6	102	0.00
7		Trichlorofluoromethane	10.000	8.549	14.5	103	0.00
8	C	1,1-Dichloroethene	10.000	9.246	7.5#	112	0.00
9		Acetone	10.000	8.227	17.7	98	0.00
10		Iodomethane	10.000	8.324	16.8	101	0.00
11		Carbon Disulfide	10.000	9.243	7.6	112	0.00
12		Methylene Chloride	10.000	9.032	9.7	114	0.00
13		(trans) 1,2-Dichloroethene	10.000	9.275	7.2	112	0.00
14		Methyl t-Butyl Ether	10.000	8.181	18.2	100	0.00
15	P	1,1-Dichloroethane	10.000	9.186	8.1	111	0.00
16		Vinyl Acetate	10.000	10.299	-3.0	133	0.00
17		2,2-Dichloropropane	10.000	9.093	9.1	109	0.00
18		(cis) 1,2-Dichloroethene	10.000	8.962	10.4	108	0.00
19		2-Butanone	10.000	8.249	17.5	103	0.00
20		Bromochloromethane	10.000	9.341	6.6	111	0.00
21	C	Chloroform	10.000	8.673	13.3#	106	0.00
22		1,1,1-Trichloroethane	10.000	8.737	12.6	105	0.00
23	S	Dibromofluoromethane	10.000	7.705	22.9#	92	0.00
24		Carbon Tetrachloride	10.000	8.988	10.1	110	0.00
25		1,1-Dichloropropene	10.000	8.987	10.1	110	0.00
26		Benzene	10.000	9.158	8.4	111	0.00
27		1,2-Dichloroethane	10.000	8.086	19.1	97	0.00
28	I	1,4-Difluorobenzene	10.000	10.000	0.0	111	0.00
29		Trichloroethene	10.000	10.117	-1.2	115	0.00
30	C	1,2-Dichloropropane	10.000	9.820	1.8#	111	0.00
31		Dibromomethane	10.000	10.293	-2.9	115	0.00
32		Bromodichloromethane	10.000	9.439	5.6	106	0.00
33		2-Chloroethyl Vinyl Ether	10.000	2.605	73.9#	32	0.00
34		(cis) 1,3-Dichloropropene	10.000	9.734	2.7	107	0.00
35		Methyl Isobutyl Ketone	10.000	8.488	15.1	100	0.00
36	S	Toluene-d8	10.000	9.613	3.9	107	0.00
37	C	Toluene	10.000	9.764	2.4#	113	0.00
38	I	Chlorobenzene-d5	10.000	10.000	0.0	106	0.00
39		(trans) 1,3-Dichloropropene	10.000	10.087	-0.9	104	0.00
40		1,1,2-Trichloroethane	10.000	9.618	3.8	108	0.00
41		Tetrachloroethene	10.000	11.159	-11.6	121	0.00
42		1,3-Dichloropropane	10.000	9.878	1.2	104	0.00
43		2-Hexanone	10.000	8.662	13.4	99	0.00
44		Dibromochloromethane	10.000	10.182	-1.8	108	0.00
45		1,2-Dibromoethane	10.000	9.997	0.0	107	0.00
46	P	Chlorobenzene	10.000	10.517	-5.2	115	0.00
47		1,1,1,2-Tetrachloroethane	10.000	10.719	-7.2	113	0.00
48	C	Ethylbenzene	10.000	10.595	-6.0#	112	0.00

Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49		m,p-Xylene	20.000	21.453	-7.3	112	0.00
50		o-Xylene	10.000	10.554	-5.5	111	0.00
51		Styrene	10.000	10.906	-9.1	112	0.00
52	P	Bromoform	10.000	10.642	-6.4	113	0.00
53		Isopropylbenzene	10.000	11.063	-10.6	115	0.00
54	S	4-Bromofluorobenzene	10.000	9.373	6.3	98	0.00
55	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	106	0.00
56		Bromobenzene	10.000	10.637	-6.4	116	0.00
57	P	1,1,2,2-Tetrachloroethane	10.000	9.351	6.5	105	0.00
58		1,2,3-Trichloropropane	10.000	9.110	8.9	99	0.00
59		n-Propylbenzene	10.000	10.787	-7.9	114	0.00
60		2-Chlorotoluene	10.000	11.018	-10.2	117	0.00
61		4-Chlorotoluene	10.000	11.023	-10.2	116	0.00
62		1,3,5-Trimethylbenzene	10.000	11.202	-12.0	115	0.00
63		tert-Butylbenzene	10.000	11.476	-14.8	116	0.00
64		1,2,4-Trimethylbenzene	10.000	11.221	-12.2	116	0.00
65		sec-Butylbenzene	10.000	11.460	-14.6	117	0.00
66		1,3-Dichlorobenzene	10.000	10.934	-9.3	117	0.00
67		p-Isopropyltoluene	10.000	11.592	-15.9	119	0.00
68		1,4-Dichlorobenzene	10.000	10.759	-7.6	116	0.00
69		1,2-Dichlorobenzene	10.000	10.945	-9.5	116	0.00
70		n-Butylbenzene	10.000	11.489	-14.9	120	0.00
71		1,2-Dibromo-3-chloropropane	10.000	11.587	-15.9	122	0.00
72		1,2,4-Trichlorobenzene	10.000	11.595	-16.0	123	0.00
73		Hexachlorobutadiene	10.000	13.092	-30.9#	144	0.00
74		Naphthalene	10.000	10.126	-1.3	109	0.00
75		1,2,3-Trichlorobenzene	10.000	10.002	-0.0	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	586461	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	844392	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	637433	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	260379	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	205778	7.71	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 77.10%			
36) Toluene-d8	6.220	98	956546	9.61	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.10%			
54) 4-Bromofluorobenzene	8.616	95	265221	9.37	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	308233	6.85	ppb	100
3) Chloromethane	1.343	50	602772	8.67	ppb	99
4) Vinyl Chloride	1.428	62	499070	8.52	ppb	99
5) Bromomethane	1.690	96	233049	8.37	ppb	99
6) Chloroethane	1.769	64	253087	8.24	ppb	100
7) Trichlorofluoromethane	1.977	101	539345	8.55	ppb	100
8) 1,1-Dichloroethene	2.416	61	623367	9.25	ppb	100
9) Acetone	2.477	43	34220	8.23	ppb	96
10) Iodomethane	2.538	142	374042	8.32	ppb	94
11) Carbon Disulfide	2.592	76	990845	9.24	ppb	100
12) Methylene Chloride	2.824	49	523929	9.03	ppb	100
13) (trans) 1,2-Dichloroet...	3.056	61	629597	9.27	ppb	99
14) Methyl t-Butyl Ether	3.068	73	349787	8.18	ppb	98
15) 1,1-Dichloroethane	3.409	63	710747	9.19	ppb	99
16) Vinyl Acetate	3.464	43	336829	10.30	ppb	99
17) 2,2-Dichloropropane	3.897	77	449198	9.09	ppb	100
18) (cis) 1,2-Dichloroethene	3.897	61	640306	8.96	ppb	100
19) 2-Butanone	3.921	43	58559	8.25	ppb	97
20) Bromochloromethane	4.098	130	139839	9.34	ppb	97
21) Chloroform	4.165	83	530285	8.67	ppb	100
22) 1,1,1-Trichloroethane	4.318	97	515080	8.74	ppb	98
24) Carbon Tetrachloride	4.458	117	495034	8.99	ppb	96
25) 1,1-Dichloropropene	4.452	75	459233	8.99	ppb	100
26) Benzene	4.629	78	1230387	9.16	ppb	99
27) 1,2-Dichloroethane	4.641	62	300860	8.09	ppb	100
29) Trichloroethene	5.171	130	376789	10.12	ppb	99
30) 1,2-Dichloropropane	5.360	63	333753	9.82	ppb	99
31) Dibromomethane	5.464	174	112342	10.29	ppb	100
32) Bromodichloromethane	5.598	83	319028	9.44	ppb	99
33) 2-Chloroethyl Vinyl Ether	5.860	63	4736	2.61	ppb	97
34) (cis) 1,3-Dichloropropene	5.982	75	338111	9.73	ppb	100
35) Methyl Isobutyl Ketone	6.122	43	105513	8.49	ppb	98
37) Toluene	6.281	91	1341880	9.76	ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	226360	10.09	ppb	99
40) 1,1,2-Trichloroethane	6.634	97	129774	9.62	ppb	99
41) Tetrachloroethene	6.768	166	388073	11.16	ppb	99
42) 1,3-Dichloropropane	6.787	76	231621	9.88	ppb	100
43) 2-Hexanone	6.866	43	69728	8.66	ppb	99
44) Dibromochloromethane	6.988	129	177471	10.18	ppb	99

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

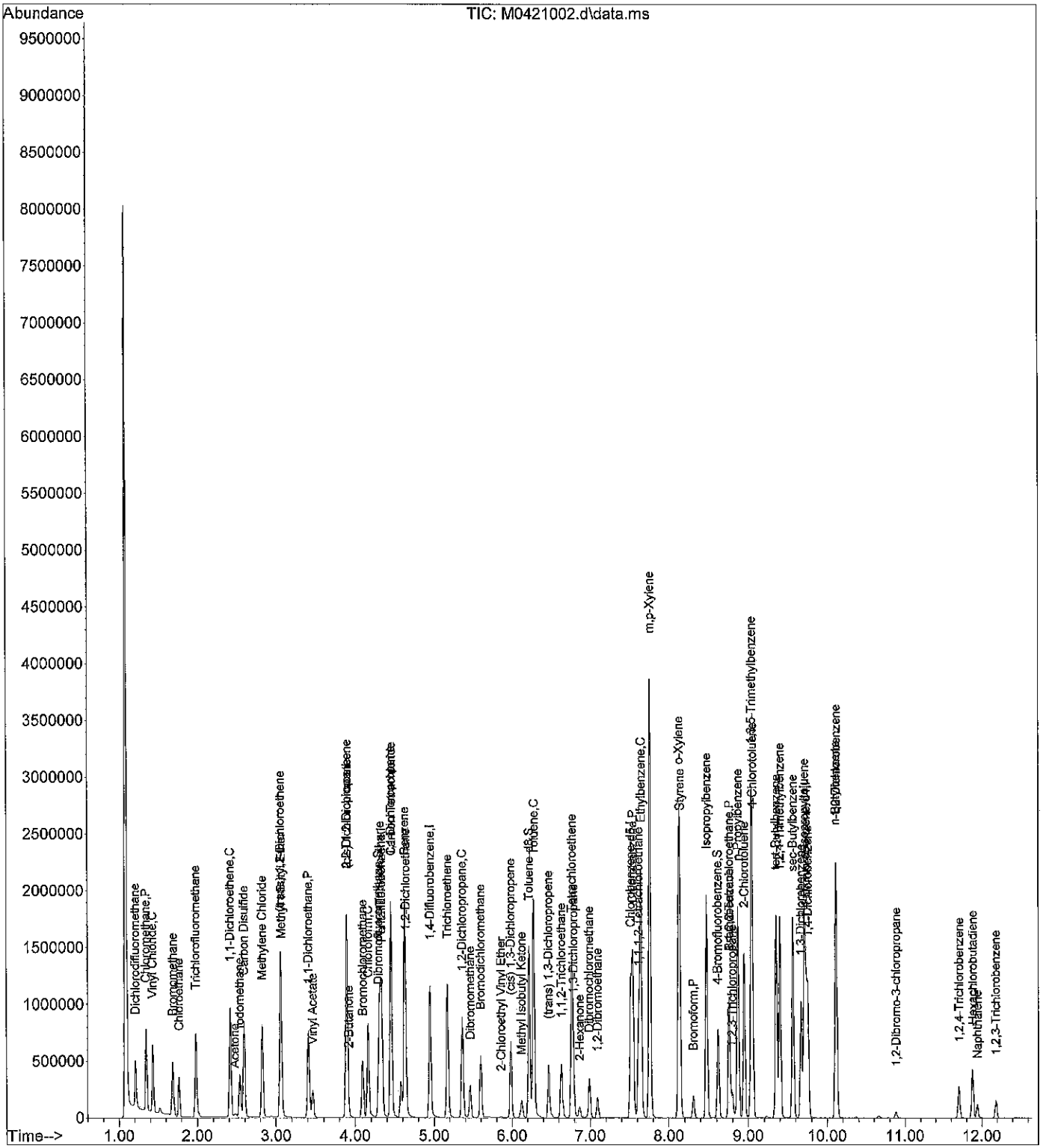
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	117902	10.00	ppb		98
46) Chlorobenzene	7.543	112	746417	10.52	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	245139	10.72	ppb		100
48) Ethylbenzene	7.646	91	1476598	10.59	ppb		99
49) m,p-Xylene	7.756	91	2237037	21.45	ppb		98
50) o-Xylene	8.128	91	1005535	10.55	ppb		99
51) Styrene	8.140	104	774608	10.91	ppb		100
52) Bromoform	8.311	173	94182	10.64	ppb		99
53) Isopropylbenzene	8.475	105	1315484	11.06	ppb		99
56) Bromobenzene	8.762	156	250598	10.64	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	106715	9.35	ppb		99
58) 1,2,3-Trichloropropane	8.799	75	82051	9.11	ppb	#	100
59) n-Propylbenzene	8.872	91	1498373	10.79	ppb		98
60) 2-Chlorotoluene	8.951	126	294900	11.02	ppb		99
61) 4-Chlorotoluene	9.055	126	289578	11.02	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	1101845	11.20	ppb		97
63) tert-Butylbenzene	9.353	119	889428	11.48	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	1023087	11.22	ppb		97
65) sec-Butylbenzene	9.567	105	1281111	11.46	ppb		98
66) 1,3-Dichlorobenzene	9.670	146	444978	10.93	ppb		99
67) p-Isopropyltoluene	9.713	119	1020550	11.59	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	457794	10.76	ppb		99
69) 1,2-Dichlorobenzene	10.115	146	323116	10.94	ppb		98
70) n-Butylbenzene	10.109	91	923261	11.49	ppb		98
71) 1,2-Dibromo-3-chloropr...	10.884	157	15090	11.59	ppb		93
72) 1,2,4-Trichlorobenzene	11.707	180	94502	11.59	ppb		99
73) Hexachlorobutadiene	11.883	225	99875	13.09	ppb		98
74) Naphthalene	11.944	128	98089	10.13	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	52955	10.00	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

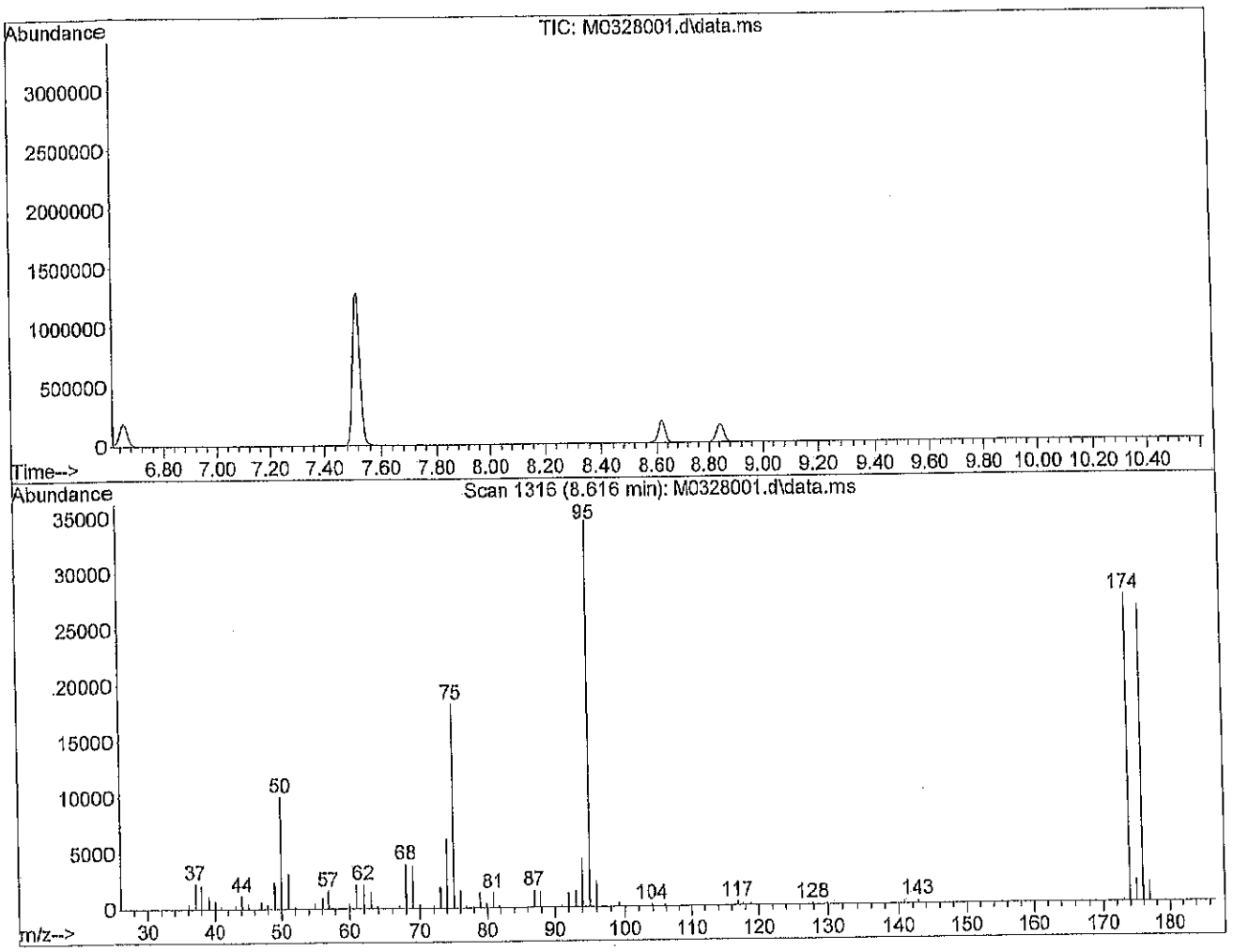
Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\M140328\Snapshot\
Data File : M0328001.d
Acq On : 28 Mar 2014 6:54 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140324W.M
Title :
Last Update : Mon Mar 24 11:06:36 2014



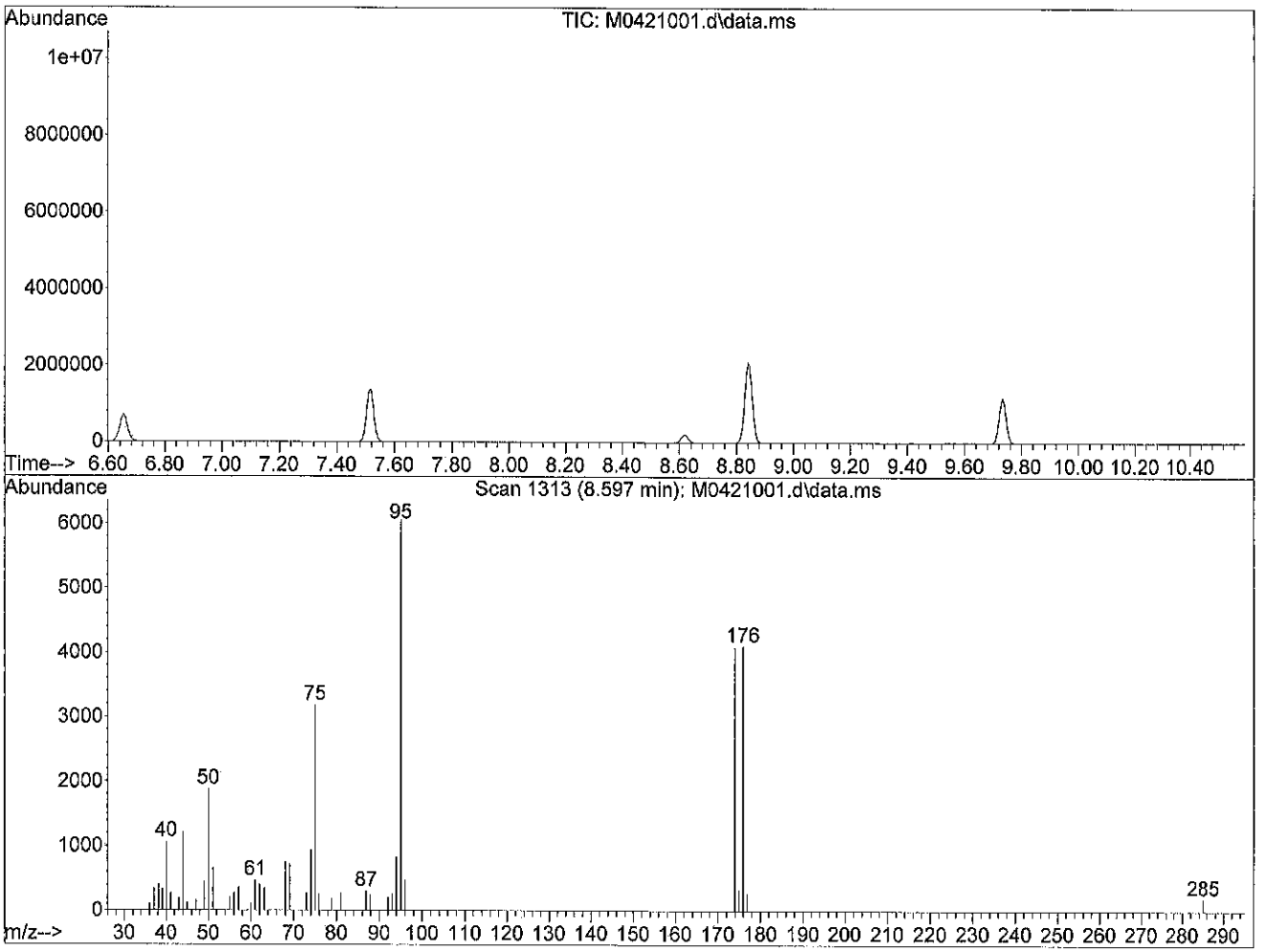
Spectrum Information: Scan 1316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	29.0	10030	PASS
75	95	30	80	52.9	18280	PASS
95	95	100	100	100.0	34536	PASS
96	95	5	9	6.6	2289	PASS
173	174	0.00	2	0.7	191	PASS
174	95	50	100	79.5	27456	PASS
175	174	5	9	7.0	1915	PASS
176	174	95	101	96.5	26504	PASS
177	176	5	9	6.6	1751	PASS

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421001.d
Acq On : 21 Apr 2014 7:37 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014



Spectrum Information: Scan 1313

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.1	1885	PASS
75	95	30	80	52.6	3186	PASS
95	95	100	100	100.0	6061	PASS
96	95	5	9	8.0	482	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	67.4	4083	PASS
175	174	5	9	8.0	328	PASS
176	174	95	101	100.6	4107	PASS
177	176	5	9	6.4	264	PASS

GC/MS QA-QC Check Report

Tune File : X:\VOLATILE\MORRIS\DATA\M140421\M0421001.d
Tune Time : 21 Apr 2014 7:37 am

Daily Calibration File : X:\VOLATILE\MORRIS\DATA\M140421\M0421002.d

File	Sample	Surrogate Recovery %			Internal Standard Responses		
					586461	844392	637433
					260379		
M0421003.d							
	SB0421W1	80	95	91	583615	851796	638455
				246954			
M0421004.d							
	04-137-01c	82	95	92	577702	854037	650908
				257039			
M0421005.d							
	04-137-01d	82	95	93	582849	844413	648272
				251232			
M0421006.d							
	MB0421W1	83	96	92	575038	840158	651278
				255461			
M0421007.d							
	04-137-01b	84	96	93	572939	840580	643845
				248008			
M0421017.d							
	04-138-01b	86	95	93	565535	844298	650472
				254165			
M0421018.d							
	04-138-02b	85	97	93	569542	826956	653057
				258992			
M0421019.d							
	04-138-03b	87	96	93	565750	827916	643097
				253797			
M0421020.d							
	04-138-04b	82	96	93	568717	829209	630972
				247246			
M0421021.d							
	04-138-05b	86	96	92	569815	839597	651492
				257102			

(fails) - fails 12hr time check * - fails criteria

Created: Tue Apr 22 07:14:43 2014 Morris

Sequence Name: C:\msdchem\1\sequence\M140328.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140328\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0328001 M140324W 50ng bfb mass tune
2)	Sample 2	M0328002 M140324W blank
3)	Sample 3	M0328003 M140324W 0.20 PPB ICAL
4)	Sample 4	M0328004 M140324W 1.0 PPB ICAL
5)	Sample 5	M0328005 M140324W 2.0 PPB ICAL
6)	Sample 6	M0328006 M140324W 5.0 PPB ICAL
7)	Sample 7	M0328007 M140324W 10 PPB ICAL
8)	Sample 8	M0328008 M140324W BLANK
9)	Sample 9	M0328009 M140324W 25 PPB ICAL
10)	Sample 10	M0328010 M140324W BLANK
11)	Sample 11	M0328011 M140324W 50 PPB ICAL
12)	Sample 12	M0328012 M140324W BLANK
13)	Sample 13	M0328013 M140324W BLANK
14)	Sample 14	M0328014 M140324W ICV0328W1
15)	Sample 15	M0328015 M140324W BLANK
16)	Sample 16	M0328016 M140324W BLANK
17)	Sample 17	M0328017 M140324W BLANK
18)	Sample 18	M0328018 M140324W 03-202-01a 1:100 SCREEN
19)	Sample 19	M0328019 M140324W 03-202-02a 1:100 SCREEN
20)	Sample 20	M0328020 M140324W 03-202-03a 1:100 SCREEN
21)	Sample 21	M0328021 M140324W 03-202-04a 1:100 SCREEN
22)	Sample 22	M0328022 M140324W 03-206-04c 1:100 SCREEN
23)	Sample 23	M0328023 M140324W 03-206-08c 1:100 SCREEN
24)	Sample 24	M0328024 M140324W 03-206-12c 1:100 SCREEN
25)	Sample 25	M0328025 M140324W 03-206-16c 1:100 SCREEN
26)	Sample 26	M0328026 M140324W 03-207-01a 1:100 SCREEN
27)	Sample 27	M0328027 M140324W 03-207-02a 1:100 SCREEN
28)	Sample 28	M0328028 M140324W 03-207-03a 1:100 SCREEN
29)	Sample 29	M0328029 M140324W 03-207-04a 1:100 SCREEN
30)	Sample 30	M0328030 M140324W 03-207-05a 1:100 SCREEN
31)	Sample 31	M0328031 M140324W 03-207-06a 1:100 SCREEN
32)	Sample 32	M0328032 M140324W 03-207-07a 1:100 SCREEN
33)	Sample 33	M0328033 M140324W 03-207-08a 1:100 SCREEN
34)	Sample 34	M0328034 M140324W 03-207-09a 1:100 SCREEN

Sequence Name: C:\msdchem\1\sequence\M140421.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140421\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0421001 M140328W 50ng bfb mass tune
2)	Sample 2	M0421002 M140328W CCV0421W1
3)	Sample 3	M0421003 M140328W SB0421W1
4)	Sample 4	M0421004 M140328W 04-137-01c MS
5)	Sample 5	M0421005 M140328W 04-137-01d MSD
6)	Sample 6	M0421006 M140328W MB0421W1
7)	Sample 7	M0421007 M140328W 04-137-01b
8)	Sample 8	M0421008 M140328W 04-137-04b
9)	Sample 9	M0421009 M140328W 04-137-05b
10)	Sample 10	M0421010 M140328W 04-137-02b
11)	Sample 11	M0421011 M140328W 04-137-03b
12)	Sample 12	M0421012 M140328W 04-123-01b
13)	Sample 13	M0421013 M140328W 04-123-02b
14)	Sample 14	M0421014 M140328W 04-123-03b
15)	Sample 15	M0421015 M140328W 04-123-04b
16)	Sample 16	M0421016 M140328W 04-123-05b
17)	Sample 17	M0421017 M140328W 04-138-01b
18)	Sample 18	M0421018 M140328W 04-138-02b
19)	Sample 19	M0421019 M140328W 04-138-03b
20)	Sample 20	M0421020 M140328W 04-138-04b
21)	Sample 21	M0421021 M140328W 04-138-05b
22)	Sample 22	M0421022 M140328W 04-156-01b
23)	Sample 23	M0421023 M140328W 04-156-02b
24)	Sample 24	M0421024 M140328W 04-156-03b
25)	Sample 25	M0421025 M140328W 04-156-04b
26)	Sample 26	M0421026 M140328W 04-156-05b
27)	Sample 27	M0421027 M140328W 04-151-01a 1:100 SCREEN
28)	Sample 28	M0421028 M140328W 04-151-02a 1:100 SCREEN
29)	Sample 29	M0421029 M140328W 04-151-03a 1:100 SCREEN
30)	Sample 30	M0421030 M140328W 04-151-04a 1:100 SCREEN
31)	Sample 31	M0421031 M140328W 04-151-05a 1:100 SCREEN
32)	Sample 32	M0421032 M140328W 04-151-06a 1:100 SCREEN
33)	Sample 33	M0421033 M140328W 04-151-07a 1:100 SCREEN
34)	Sample 34	M0421034 M140328W 04-151-08a 1:100 SCREEN
35)	Sample 35	M0421035 M140328W 04-151-09a 1:100 SCREEN
36)	Sample 36	M0421036 M140328W 04-151-10a 1:100 SCREEN
37)	Sample 37	M0421037 M140328W 04-151-11a 1:100 SCREEN
38)	Sample 38	M0421038 M140328W 04-151-12a 1:100 SCREEN
39)	Sample 39	M0421039 M140328W 04-151-13a 1:100 SCREEN
40)	Sample 40	M0421040 M140328W 04-151-14a 1:100 SCREEN
41)	Sample 41	M0421041 M140328W 04-151-15a 1:100 SCREEN
42)	Sample 42	M0421042 M140328W 04-151-16a 1:100 SCREEN
43)	Sample 43	M0421043 M140328W 04-151-17a 1:100 SCREEN

Sequence Name: C:\msdchem\1\sequence\M140421.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)		Sample	44	M0421044	M140328W	04-151-18a 1:100 SCREEN
45)		Sample	45	M0421045	M140328W	04-151-19a 1:100 SCREEN
46)		Sample	46	M0421046	M140328W	04-151-20a 1:100 SCREEN
47)		Sample	47	M0421047	M140328W	04-151-21a 1:100 SCREEN
48)		Sample	48	M0421048	M140328W	04-151-22a 1:100 SCREEN
49)		Sample	49	M0421049	M140328W	04-151-23a 1:100 SCREEN
50)		Sample	50	M0421050	M140328W	04-151-24a 1:100 SCREEN
51)		Sample	51	M0421051	M140328W	04-151-25a 1:100 SCREEN
52)		Sample	52	M0421052	M140328W	04-151-26a 1:100 SCREEN
53)		Sample	53	M0421053	M140328W	04-151-27a 1:100 SCREEN
54)		Sample	54	M0421054	M140328W	04-151-28a 1:100 SCREEN
55)		Sample	55	M0421055	M140328W	04-151-29a 1:100 SCREEN

OnSite Environmental Inc.

WATER EXTRACTION LOG

Instrument Run #: M140421
Date: 4-21-14

Int. Std./Surr. Stock#: V3-125-12/V3-12513
Matrix Spike Stock#: V3-125-5

# of Sample	Date	Sample I.D.	Volume	pH of Sample	Analyst	Miscellaneous
	4-21-14	MB042121W1	25mL	7	SD	
		SB042121W1		7		
1		04-123-016		2		
2		-026				
3		-036				
4		-046				
5		-056				
6		04-137-016				
		-016 MS				
		-016 MSD				
7		-026				
8		-036				
9		-046				
10		-056				
11		04-138-016				
12		-026				
13		-036				
14		-046				
15		-056				
16		04-156-016				
17		-026				
18		-036				
19		-046				
20		-056				
		SD 4/22/14				

TITLE **PROJECT**

Continued from page 11a

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
VOC ADD'S	V3-115-1							10-1-13	SD
		M-8260-ADD-10X Method 8260 Additions 2.0 mg/mL in MeOH Lot: 213091338 Exp: Jan 25,2014			1 mL				
5					8 comps. HIGHLY FLAMMABLE				discarded SD 11-19-13
250 ppm ICAL	V3-115-2	V3-114-4	2000 ppm	25 µL	1 mL	250 ppm	MeOH	10-1-13	SD
		V3-114-16							disc SD 11-8
		V3-115-1							
10 50 ppm ICAL	V3-115-3	V3-115-2	250 ppm	200 µL	1mL	50 ppm	MeOH	10-1-13	SD
10 ppm ICAL	V3-115-4	V3-115-3	50 ppm	200 µL	1mL	10 ppm	MeOH	10-1-13	SD
5 ppm ICAL	V3-115-5	V3-115-3	50 ppm	100 µL	1mL	5 ppm	MeOH	10-1-13	SD
1 ppm ICAL	V3-115-6	V3-115-3	50 ppm	20 µL	1mL	1 ppm	MeOH	10-1-13	SD
50 ppm SS (new)	V3-115-7	V3-113-16	2000 ppm	25 µL	1mL	50 ppm	MeOH	10-2-13	SD spoke SD 12-2
15 50 ppm ICV	V3-115-8	V3-101-7	2000 ppm	25 µL	1mL	50 ppm	MeOH	10-2-13	SD discard SD 11-19
		V3-101-8							
		V3-101-9							
50 ppm CCV	V3-115-9	V3-114-4	2000 ppm	25 µL	1mL	50 ppm	MeOH	10-2-13	SD discard SD 11-22
		V3-114-16							
20		V3-115-1							
2000 ppm SS	V3-115-10							10-7-13	SD
		M-8240/60-SS-10X Surrogate Standard VOA Mix 2.0 mg/mL in MeOH Lot: 212051380 Exp: Jun 1,2022			1 mL				spoke SD 11-14-13
					4 comps. HIGHLY FLAMMABLE				
25 250 ppm SS	V3-115-11	V3-113-16			1mL	250 ppm	MeOH	10-7-13	SD spoke SD 10-7-13
		V3-115-10	2000 ppm	500 µL					
250 ppm IS	V3-115-12	V3-114-14	2000 ppm	500 µL	4mL	250 ppm	MeOH	10-8-13	SD discard SD 11-19 and SD 11-22
WRONG 50 ppm SS	V3-115-13	V3-115-10	2000 ppm	100 µL	4mL	50 ppm	MeOH	10-8-13	discard
50 ppm IS	V3-115-14	V3-114-14	2000 ppm	100 µL	4mL	50 ppm	MeOH	10-8-13	discard SD 11-19
30 .05 ppm ICAL	V3-115-15	V3-115-6	1 ppm	.050 mL	1 mL	.050 ppm	MeOH	10-9-13	discard SD 11-8-13
50 ppm CCV	V3-115-16	V3-114-4	2000 ppm	25 µL	1mL	50 ppm	MeOH	10-10-13	SD
		V3-114-16							discard SD 10-
		V3-115-1							
2500 ppm MS	V3-115-17							10-10-13	SD
35		CLP-003-R-10X Purgeable Organic Matrix Spiking Soln. 2.5 mg/mL in MeOH Lot: 212011385 Exp: Feb 6,2022			1 mL				
					5 comps. HIGHLY FLAMMABLE				

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SIGNATURE

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TITLE **PROJECT**

Continued from page 120

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
	2000 ppm IS	V3121-1							2-3-14	SD
5									spot	
									SD	
									2	
Albert	250 ppm IS	V3-121-2	V3-120-8 + V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-3-14	SD
	50 ppm IS	V3-121-3	V3-115-9	2500 ppm	20 mL	1 mL	50 ppm	MeOH	2-3-14	SD
10	2000 ppm SS	V3-121-4							2-4-14	SD
Albert	250 ppm SS	V3-120-13 + V3-121-4	2000 ppm	500 µL	4 mL	1 mL 250 ppm SD 2-4-14	250 ppm SD 2-4-14	MeOH	2-4-14	SD
15										
Albert	250 ppm SS	V3-121-5	V3-120-13 + V3-121-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-4-14	SD
	~~VOC Liquids~~	V3-121-6							2-5-14	SD
20									discarded	
									2/19	
	VOC ADD IS	V3-121-7							2-5-14	SD
									discarded	
25										
	~~VOC GASES~~	V3-121-8							2-5-14	SD
									discarded	
30	250 ppm ICAL	V3-121-9	V3-121-6	2000 ppm	125 mL	1 mL	250 ppm	MeOH	2-5-14	SD
			V3-121-7							
			V3-121-8							
	50 ppm ICAL	V3-121-10	V3-121-9	250 ppm	200 mL	1 mL	50 ppm	MeOH	2-5-14	SD
	10 ppm ICAL	V3-121-11	V3-121-10	50 ppm	200 mL	1 mL	10 ppm	MeOH	2-5-14	SD
35	5 ppm ICAL	V3-121-12	V3-121-10	50 ppm	100 mL	1 mL	5 ppm	MeOH	2-5-14	SD

Continued to page 122

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287
Exp: Nov 19,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 212051380
Exp: Jun 1,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502A-R3-10X
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619
Exp: Aug 30,2015
1 mL
55 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 213121006
Exp: Apr 3,2014
1 mL
8 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424
Exp: May 2,2016
1 mL
6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

SIGNATURE DATE

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BOOK PAGE

TITLE **PROJECT**

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ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
1 ppm ICAL	V3-122-1	V3-121-10	5 ppm	20 mL	1 mL	1 ppm	MeOH	2-5-14	SD
0.1 ppm ICAL	V3-122-2	V3-122-1	1 ppm	5 mL	0.5 mL	0.1 ppm	MeOH	2-5-14	SD
ICV VOC LIQUIDS	V3-122-3								
ICV VOC ADDs	V3-122-4								
ICV VOC GASES	V3-122-5								
50 ppm ICV	V3-122-6	V3-122-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-5-14	SD
		V3-122-4	〃	〃	〃	〃	〃	〃	〃
		V3-122-5	〃	〃	〃	〃	〃	〃	〃
100 ppm ACRYL/DCB	V3-122-7	V3-117-11	100 ppm	500 mL	1 mL	100 ppm	MeOH	2-5-14	SD
		V3-117-12	100 ppm	500 mL					
50 ppm ACRYL/DCB	V3-122-8	V3-122-7	100 ppm	500 mL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ACRYL/DCB	V3-122-9	V3-122-8	50 ppm	200 mL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ACRYL/DCB	V3-122-10	V3-122-8	50 ppm	100 mL	1 mL	5 ppm	MeOH	2-5-14	SD
50 ppm CCV	V3-122-11	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-7-14	SD
		V3-121-7	〃	〃	〃	〃	〃	〃	〃
		V3-121-8	〃	〃	〃	〃	〃	〃	〃
250 ppm IS	V3-122-12	V3-121-1	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-18-14	SD
250 ppm SS	V3-122-13	V3-121-4	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-18-14	SD
3000 ppm IS	V3-122-14								
250 ppm IS	V3-122-15	V3-121-1	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-24-14	SD
		V3-122-14	〃	〃	〃	〃	〃	〃	〃

Continued to page 123

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502A-R3-10X
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
1 mL
Lot: 213091216
Exp: Sep 19,2016
55 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
1 mL
Lot: 214011413
Exp: Jun 3,2014
8 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
1 mL
Lot: 213071142
Exp: Jul 17,2016
6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
1 mL
Lot: 212111287
Exp: Nov 19,2022
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

SIGNATURE DATE

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TITLE

PROJECT

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	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
	50 ppm SS (tune)	V3-123-1	V3-121-4	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-26-14	SD
	50 ppm CCV	V3-123-2	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-27-14	SD
			V3-121-7							
5			V3-121-8							
waldo	50 ppm IS	V3-123-3	V3-122-14	2000 ppm	100 mL	4 mL	50 ppm	MeOH	2-27-14	EBM
waldo	50 ppm SS	V3-123-4	V3-121-4	2000 ppm	100 mL	4 mL	50 ppm	MeOH	2-27-14	EBM
	~~2000 ppm SS~~	V3-123-5							2-28-14	SD
10									spent	
									3-2-14	
Albert	250 ppm SS	V3-123-6	V3-121-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-28-14	SD
			V3-123-5							
	50 ppm I.S.	V3-123-7	V3-122-14	2000 ppm	625 µL	25 mL	50 ppm	MeOH	3-6-14	SD
15 Morris	~~2000 ppm IS~~	V3-123-8							3-10-14	SD
									spent	
									3-13-14	
Albert	250 ppm IS	V3-123-9	V3-122-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
			V3-123-8							
Albert	~~250 ppm SS~~	V3-123-10	V3-123-5	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
	50 ppm CCV	V3-123-11	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
25			V3-121-8							
	~~50 ppm CCV~~	V3-123-12	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-121-8							
	VOC GASES	V3-123-13							3-13-14	SD
30										
	50 ppm CCV	V3-123-14	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-123-13							
35										

Continued to page

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028
Exp: Nov 6,2023
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287
Exp: Nov 19,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424
Exp: May 2,2016
1 mL
6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

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PROJECT

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Analyte	Lab ID	Stock ID	Stock conc.	Stock Vol.	Final Vol.	Final conc.	Solvent	Date	Initials
250 ppm IS/SS	V2-124-1	V2-123-8	2000 ppm	250 µL	2 mL	250 ppm	MeOH	3-14-14	een
		V2-123-5		250 µL					
~~50 ppm MS~~	~~V3-124-2~~	~~V3-115-17~~	~~2500 ppm~~	~~20 µL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~ discarded SD 4-15-14
50 ppm ICV	V3-124-3	V3-122-3	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-19-14	SD
		V3-122-4							
		V3-122-5							
VOC Liquids	V3-124-4							3-19-14	SD
VOC ADD's	V3-124-5							3-19-14	SD
250 ppm ICAL	V3-124-6	V3-123-13	2000 ppm	125 µL	1 mL	250 ppm	MeOH	3-19-14	SD
		V3-124-4							
		V3-124-5							
50 ppm ICAL	V3-124-7	V3-124-6	250 ppm	200	1 mL	50 ppm	MeOH	3-19-14	SD
10 ppm ICAL	V3-124-8	V3-124-7	50 ppm	200	1 mL	10 ppm	MeOH	3-19-14	SD
5 ppm ICAL	V3-124-9	V3-124-7	50 ppm	100	1 mL	5 ppm	MeOH	3-19-14	SD
1 ppm ICAL	V3-124-10	V3-124-7	50 ppm	20	1 mL	1 ppm	MeOH	3-19-14	SD
~~CCV 50 ppm~~	~~V3-124-11~~	~~V3-123-13~~	~~2000 ppm~~	~~25 µL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~ discarded SD 4-15-14
		~~V3-124-4~~							
		~~V3-124-5~~							
~~2000 ppm SS~~	~~V3-124-12~~							3-21-14	SD Spent SD 4-21-14
~~250 ppm IS~~	~~V3-124-13~~	~~V3-123-8~~	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~ discarded SD 3-31-14
~~250 ppm SS~~	~~V3-124-14~~	~~V3-123-5~~ V3-124-12	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~ Spent SD 3-31-14
~~2000 ppm IS~~	~~V3-124-15~~							3-31-14	SD Spent SD 4-21-14

Label (VOC Liquids):
AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

Label (VOC ADD's):
AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214021286 8 comps.
Exp: Jun 28,2014 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Storage: Freeze (<-10° C)
2 Danger

Label (2000 ppm SS):
AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6,2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

Label (2000 ppm IS):
AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
~~M-8260-IS-10X~~ 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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TITLE

PROJECT

Continued from page 124

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
Albert	250 ppm IS	V3-125-1	V3-123-8							
			V3-124-15	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-31-14	SD
Albert	250 ppm SS	V3-125-2	V3-124-12	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-31-14	SD
Albert	250 ppm IS	V3-125-3	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-9-14	SD
	50 ppm CCV	V3-125-4	V3-123-13	2000 ppm	25 µL	1 mL	50 ppm	MeOH	4-9-14	SD
			V3-124-4							
			V3-124-5							
	50 ppm M.S.	V3-125-5	V3-115-17	2500 ppm	20 µL	1 mL	50 ppm	MeOH	4-9-14	SD
Albert	250 ppm SS	V3-125-6	V3-124-12	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-16-14	SD
Albert	250 ppm IS	V3-125-7	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-16-14	SD
	2000 ppm IS	V3-125-8								
	2000 ppm SS	V3-125-9								
Albert	250 ppm IS	V3-125-10	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-21-14	SD
Albert	250 ppm SS	V3-125-11	V3-125-9	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-21-14	SD
Morris	50 ppm IS	V3-125-12	V3-125-8	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
Morris	50 ppm SS	V3-125-13	V3-125-9	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH 4 comps.
Lot: 212111287 HIGHLY FLAMMABLE
Exp: Nov 19,2022
FOR LABORATORY USE ONLY
Storage: Ambient
Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH 4 comps.
Lot: 213111028 HIGHLY FLAMMABLE
Exp: Nov 6,2023
FOR LABORATORY USE ONLY
STORAGE Ambient
Danger

Continued to page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

April 23, 2014

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0180-121-09
Laboratory Reference No. 1404-156

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on April 18, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: April 28, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-156
Project: 0180-121-09

Case Narrative

Samples were collected on April 17, 2014 and received by the laboratory on April 18, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: April 28, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-156
Project: 0180-121-09

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-ES-03-140417	04-156-01	Water	4-17-14	4-18-14	
MW-96-15-140417	04-156-02	Water	4-17-14	4-18-14	
MW-93-02-140417	04-156-03	Water	4-17-14	4-18-14	
RIN-1-140417	04-156-04	Water	4-17-14	4-18-14	
TB-1-140417	04-156-05	Water	4-17-14	4-18-14	

Date of Report: April 28, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-156
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-ES-03-140417**					
Laboratory ID:	04-156-01					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	16	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*85*	*62-122*				
Toluene-d8	*98*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: April 28, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-156
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-96-15-140417**					
Laboratory ID:	04-156-02					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*85*	*62-122*				
Toluene-d8	*94*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: April 28, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-156
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-93-02-140417**					
Laboratory ID:	04-156-03					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*85*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: April 28, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-156
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RIN-1-140417**					
Laboratory ID:	04-156-04					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*83*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: April 28, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-156
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TB-1-140417**					
Laboratory ID:	04-156-05					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*85*	*62-122*				
Toluene-d8	*97*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: April 28, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-156
Project: 0180-121-09

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0421W1					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Trichloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-14	4-21-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*83*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*92*	*71-120*				

Date of Report: April 28, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-156
Project: 0180-121-09

VOLATILES by EPA 8260C
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	04-137-01										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	**8.66**	**8.50**	10.0	10.0	ND	87	85	57-133	2	15	
Benzene	**8.90**	**8.73**	10.0	10.0	ND	89	87	78-117	2	15	
Trichloroethene	**17.7**	**18.0**	10.0	10.0	8.40	93	96	77-120	2	15	
Toluene	**9.07**	**9.25**	10.0	10.0	ND	91	93	80-115	2	15	
Chlorobenzene	**10.3**	**10.3**	10.0	10.0	ND	103	103	80-122	0	15	
Surrogate:											
Dibromofluoromethane						*82*	*82*	*62-122*			
Toluene-d8						*95*	*95*	*70-120*			
4-Bromofluorobenzene						*92*	*93*	*71-120*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

12

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 04-156

Company: CROSSWINDENGRS
Project Number: 0180-121-09
Project Name: ALLEMO
Project Manager: NICK ROHLMACH
Sampled by: BMB / MN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	PHOTO LIST VOCS					% Moisture
1	MW-ES-03-140417	4/17/14	1015	GW	3																	X					
2	MW-96-15-140417		1155																			X					
3	MW-93-02-140417		1430																			X					
4	GW-1-140417		1215																			X					
5	TB-1-140417				2																	X					

	Signature	Company	Date	Time
Relinquished		CROSSWINDENGRS	4/18	820
Received	Van	SPOK	4/18/14	8:20
Relinquished	"	"	"	1235
Received		CSE	4/18/14	1235
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 0180-121-09

OnSite Project Number: 04-156

Initiated by: MM

Date Initiated: 4/18/14

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 0		
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A			
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No	1 2 3 4	
2.2 Was the COC legible and written in permanent ink?	Yes	No	1 2 3 4	
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No	1 2 3 4	
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No	1 2 3 4	
2.5 Were all of the samples listed on the COC submitted?	Yes	No	1 2 3 4	
2.6 Were any of the samples submitted omitted from the COC?	Yes	No	1 2 3 4	

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No	1 2 3 4	
3.2 Were any sample labels missing or illegible?	Yes	No	1 2 3 4	
3.3 Have the correct containers been used for each analysis requested?	Yes	No	1 2 3 4	
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

Complete Data Package

- Volatiles by EPA 8260C

Volatiles by EPA 8260C Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421022.d
Acq On : 21 Apr 2014 4:18 pm
Operator :
Sample : 04-156-01b
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Apr 22 07:18:38 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

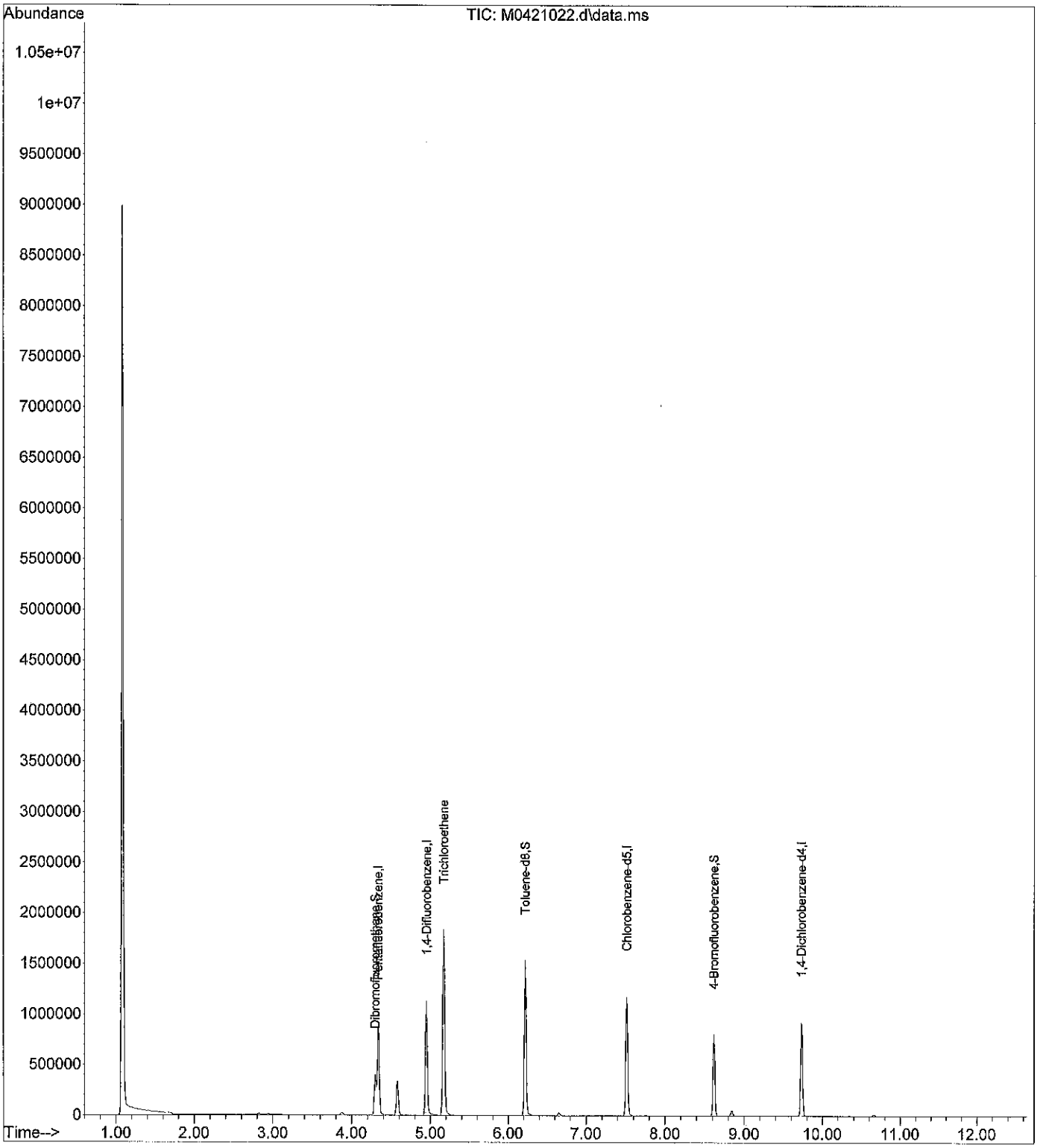
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	571262	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	832022	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	652827	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	259387	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	221045	8.50	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 85.00%			
36) Toluene-d8	6.220	98	957357	9.76	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 97.60%			
54) 4-Bromofluorobenzene	8.622	95	271722	9.38	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.80%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	576661	15.71	ppb	100

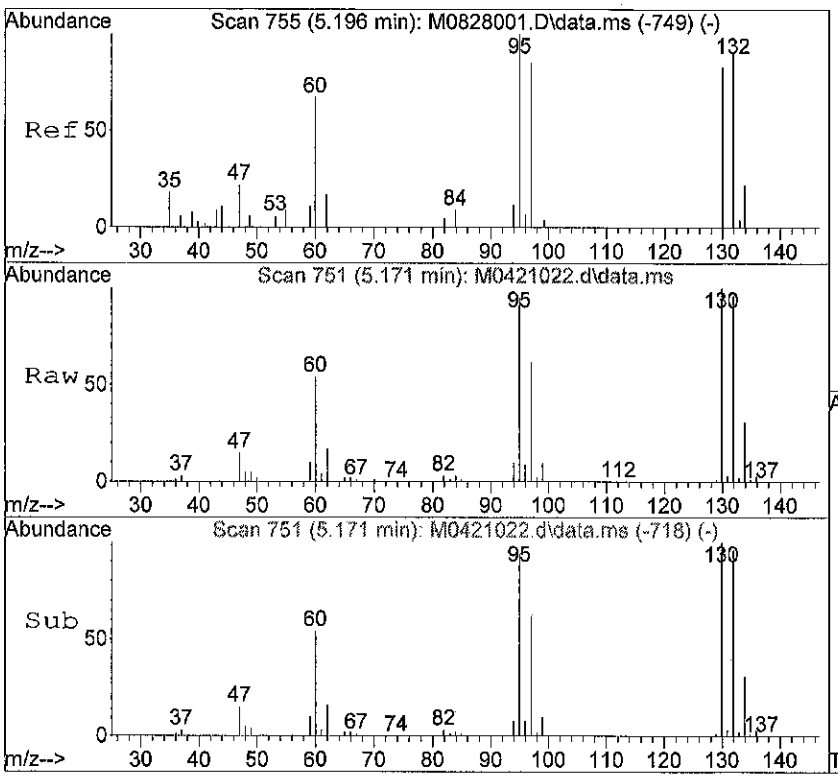
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421022.d
Acq On : 21 Apr 2014 4:18 pm
Operator :
Sample : 04-156-01b
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Apr 22 07:18:38 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

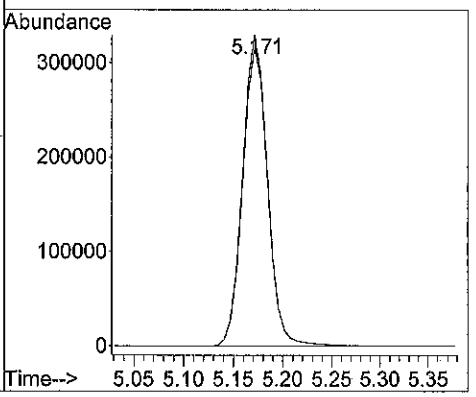




#29
Trichloroethene
Concen: 15.71 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0421022.d
Acq: 21 Apr 2014 4:18 pm

Tgt Ion:130 Resp: 576661

Ion	Ratio	Lower	Upper
130	100		
132	96.5	77.0	115.6



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421023.d
Acq On : 21 Apr 2014 4:42 pm
Operator :
Sample : 04-156-02b
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Apr 22 07:19:10 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

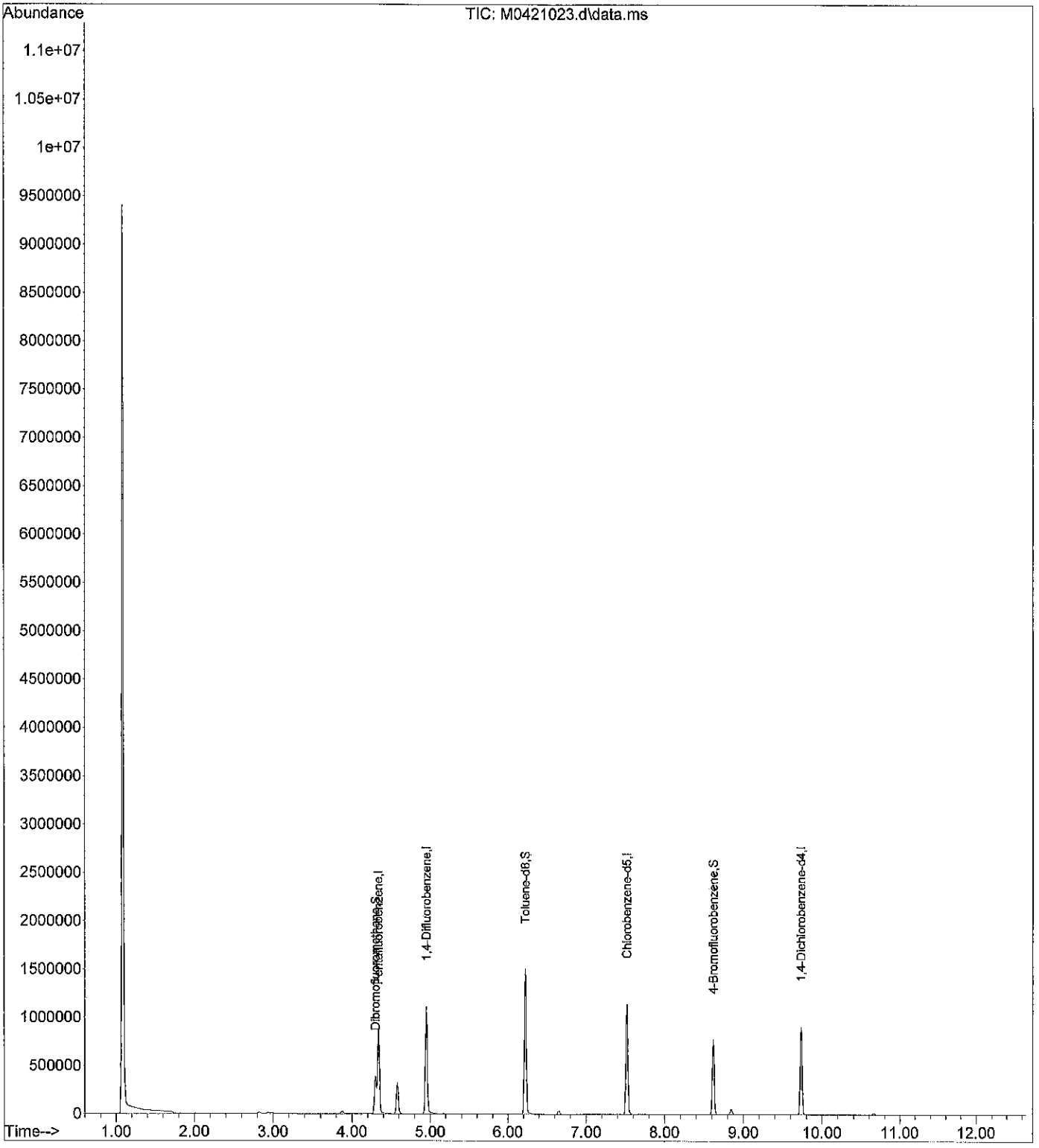
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	555685	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	826043	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	634395	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	250768	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	214566	8.48	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.80%			
36) Toluene-d8	6.220	98	918035	9.43	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 94.30%			
54) 4-Bromofluorobenzene	8.622	95	260523	9.25	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.50%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421023.d
Acq On : 21 Apr 2014 4:42 pm
Operator :
Sample : 04-156-02b
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Apr 22 07:19:10 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421024.d
Acq On : 21 Apr 2014 5:05 pm
Operator :
Sample : 04-156-03b
Misc :
ALS Vial : 24 Sample Multiplier: 1

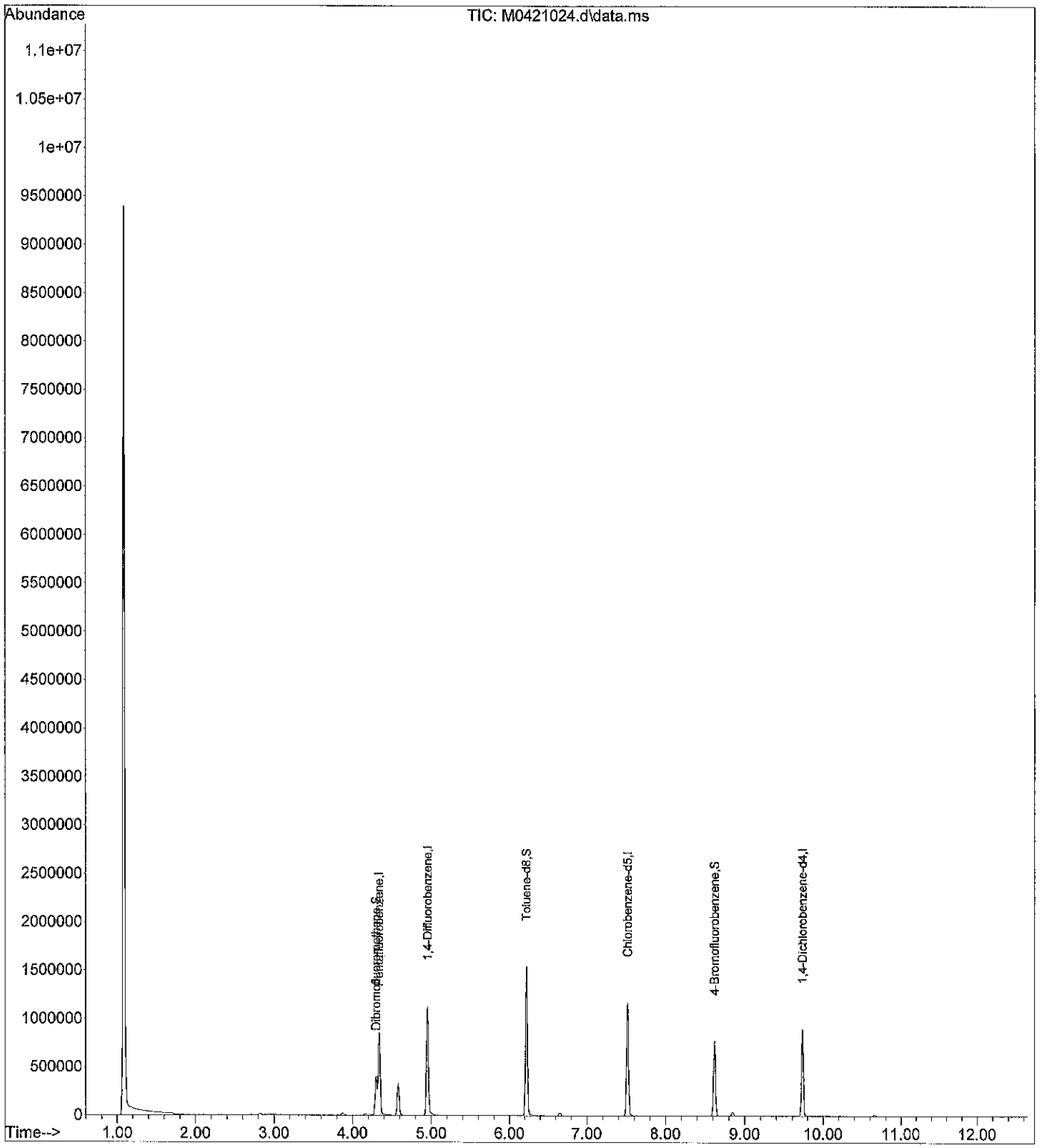
Quant Time: Apr 22 07:19:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	561078	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	823991	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	641515	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	252441	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	216727	8.48	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.80%			
36) Toluene-d8	6.220	98	935861	9.64	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.40%			
54) 4-Bromofluorobenzene	8.622	95	264651	9.29	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.90%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421024.d
Acq On : 21 Apr 2014 5:05 pm
Operator :
Sample : 04-156-03b
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Apr 22 07:19:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421025.d
Acq On : 21 Apr 2014 5:29 pm
Operator :
Sample : 04-156-04b
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Apr 22 07:20:36 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

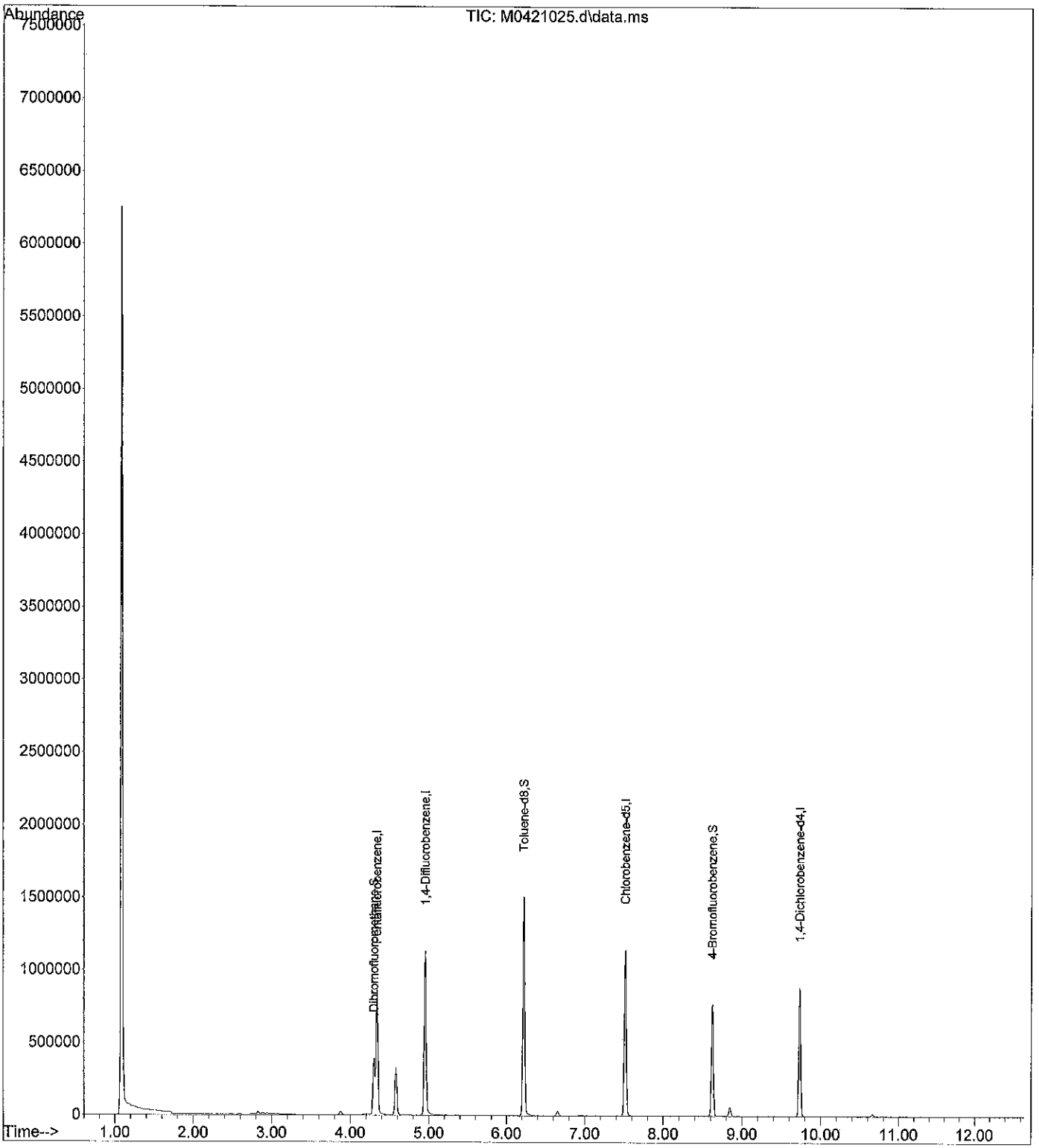
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	555573	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	819732	10.00	ppb	0.00
38) Chlorobenzene-d5	7.519	117	629750	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.732	152	244148	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	211095	8.34	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 83.40%			
36) Toluene-d8	6.220	98	928053	9.61	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.10%			
54) 4-Bromofluorobenzene	8.622	95	262741	9.40	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.00%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421025.d
Acq On : 21 Apr 2014 5:29 pm
Operator :
Sample : 04-156-04b
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Apr 22 07:20:36 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421026.d
Acq On : 21 Apr 2014 5:52 pm
Operator :
Sample : 04-156-05b
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Apr 22 07:21:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

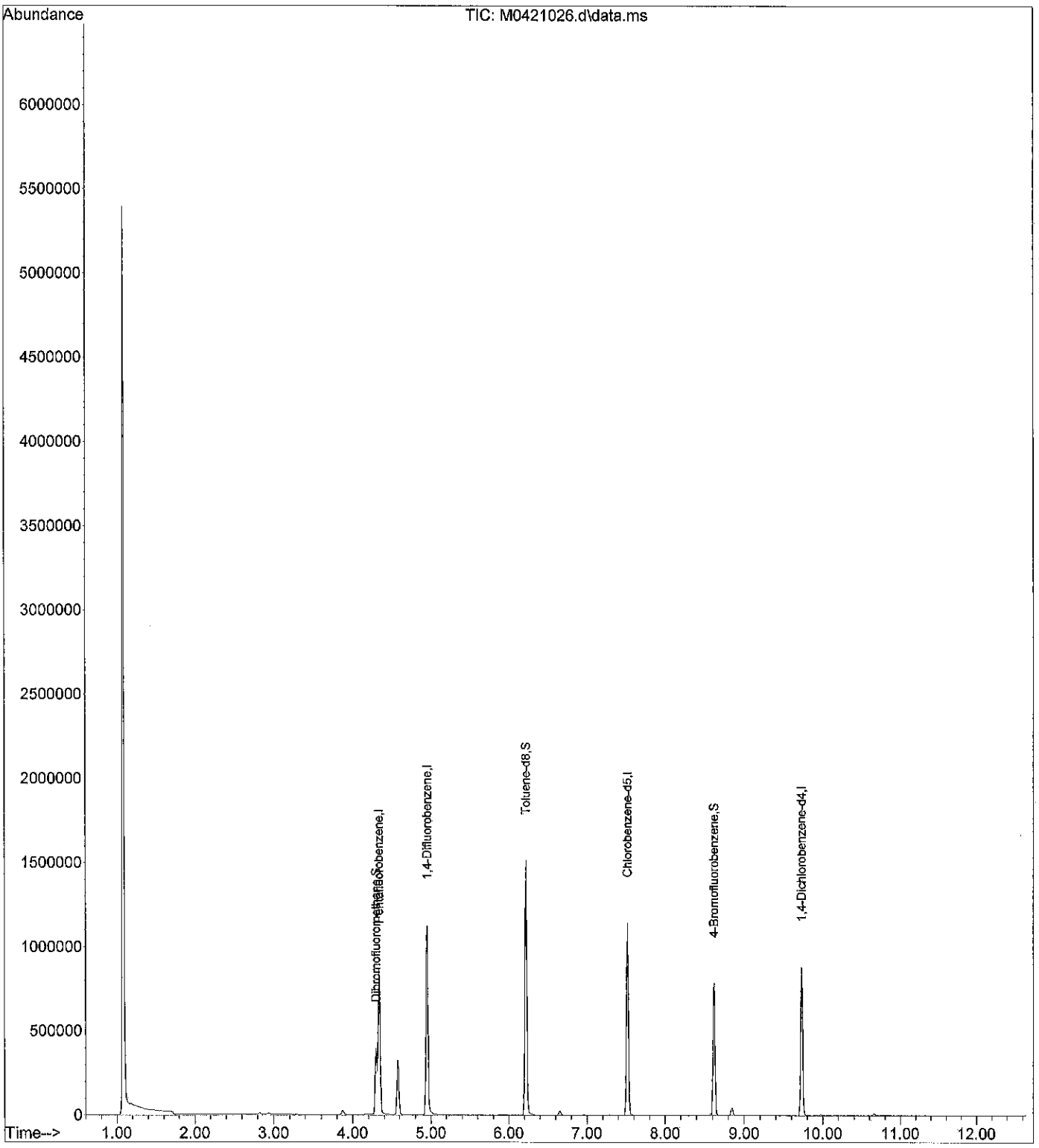
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	560269	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	824480	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	637463	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	248664	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	216579	8.49	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.90%			
36) Toluene-d8	6.220	98	945296	9.73	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 97.30%			
54) 4-Bromofluorobenzene	8.622	95	265817	9.39	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.90%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421026.d
Acq On : 21 Apr 2014 5:52 pm
Operator :
Sample : 04-156-05b
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Apr 22 07:21:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421006.d
Acq On : 21 Apr 2014 9:50 am
Operator :
Sample : MB0421W1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 21 10:26:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

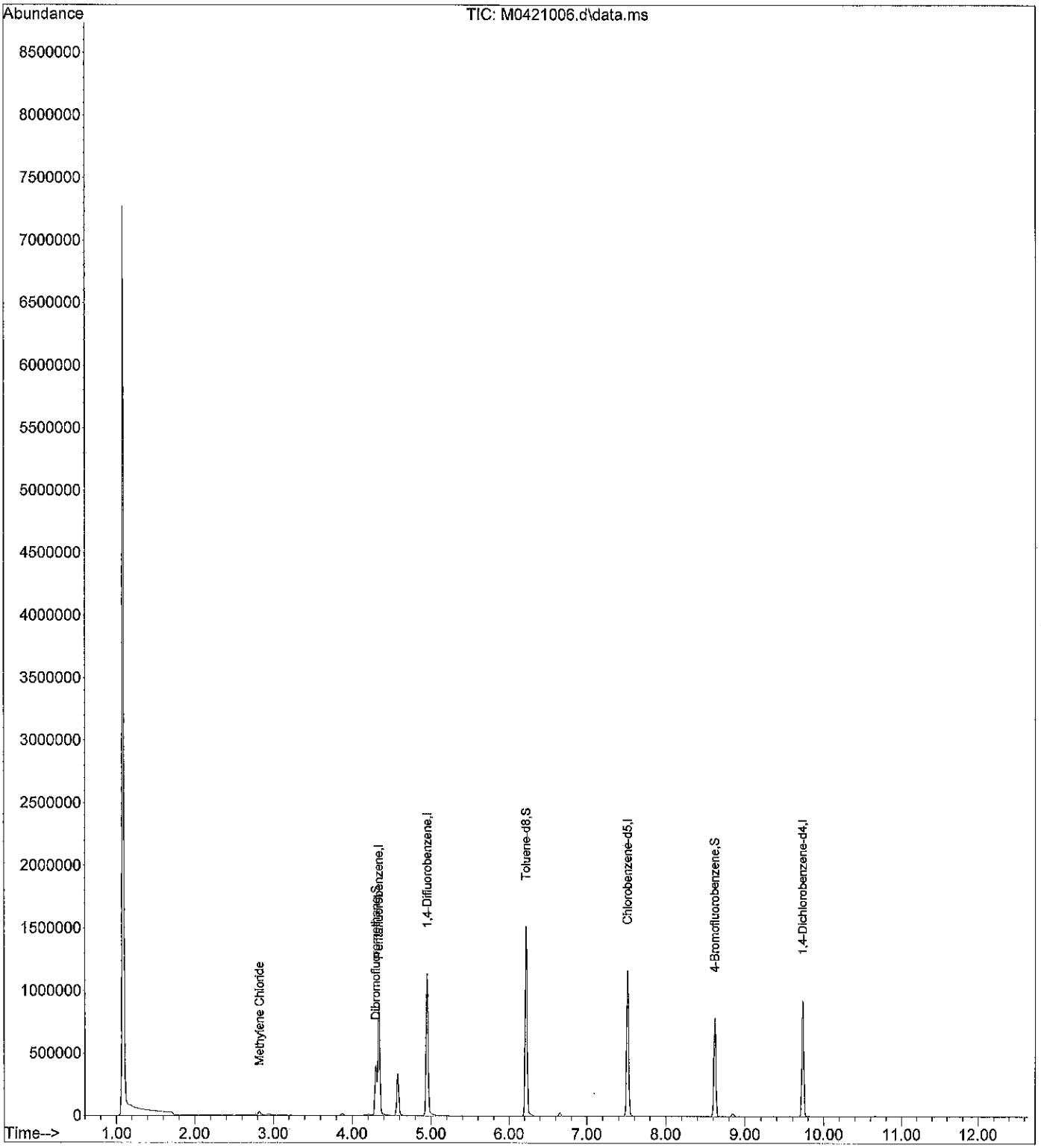
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	575038	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	840158	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	651278	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	255461	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	217851	8.32	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 83.20%			
36) Toluene-d8	6.220	98	948990	9.58	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.80%			
54) 4-Bromofluorobenzene	8.622	95	265186	9.17	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 91.70%			
Target Compounds						Qvalue
12) Methylene Chloride	2.824	49	17830	0.31	ppb	98

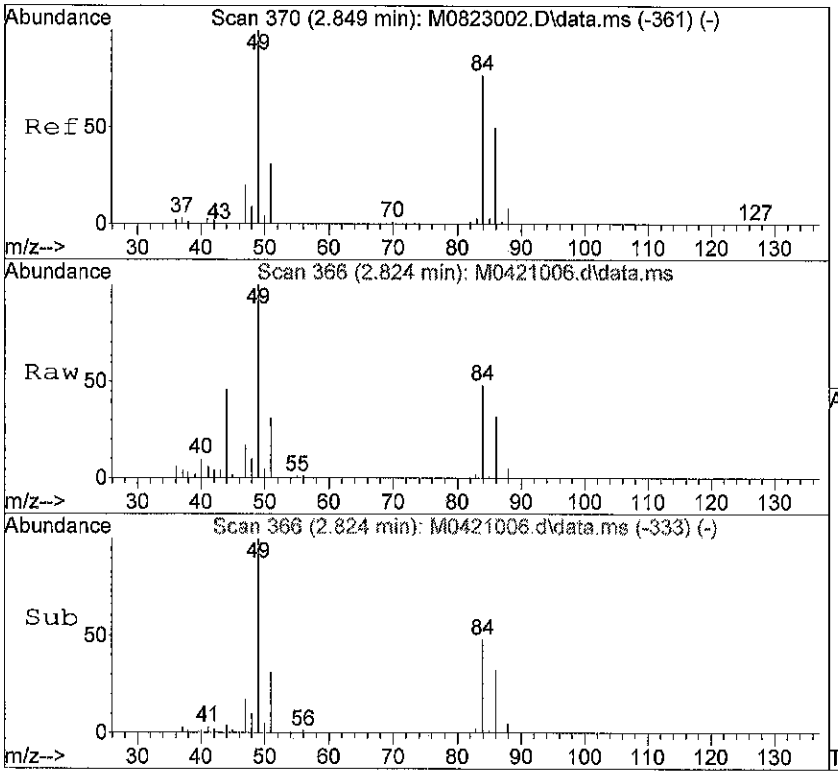
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421006.d
Acq On : 21 Apr 2014 9:50 am
Operator :
Sample : MB0421W1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 21 10:26:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

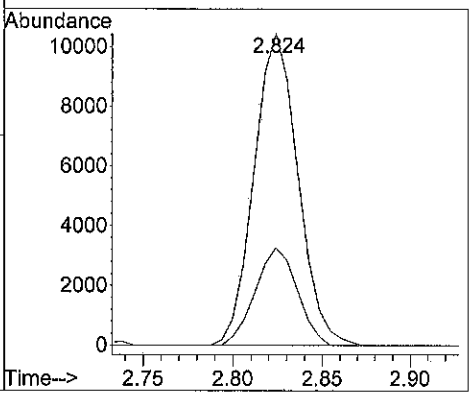




#12
Methylene Chloride
Concen: 0.31 ppb
RT: 2.824 min Scan# 366
Delta R.T. 0.000 min
Lab File: M0421006.d
Acq: 21 Apr 2014 9:50 am

Tgt Ion: 49 Resp: 17830

Ion	Ratio	Lower	Upper
49	100		
51	29.8	24.8	37.2



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421003.d
Acq On : 21 Apr 2014 8:39 am
Operator :
Sample : SB0421W1
Misc : V3-125-5
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 21 09:47:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

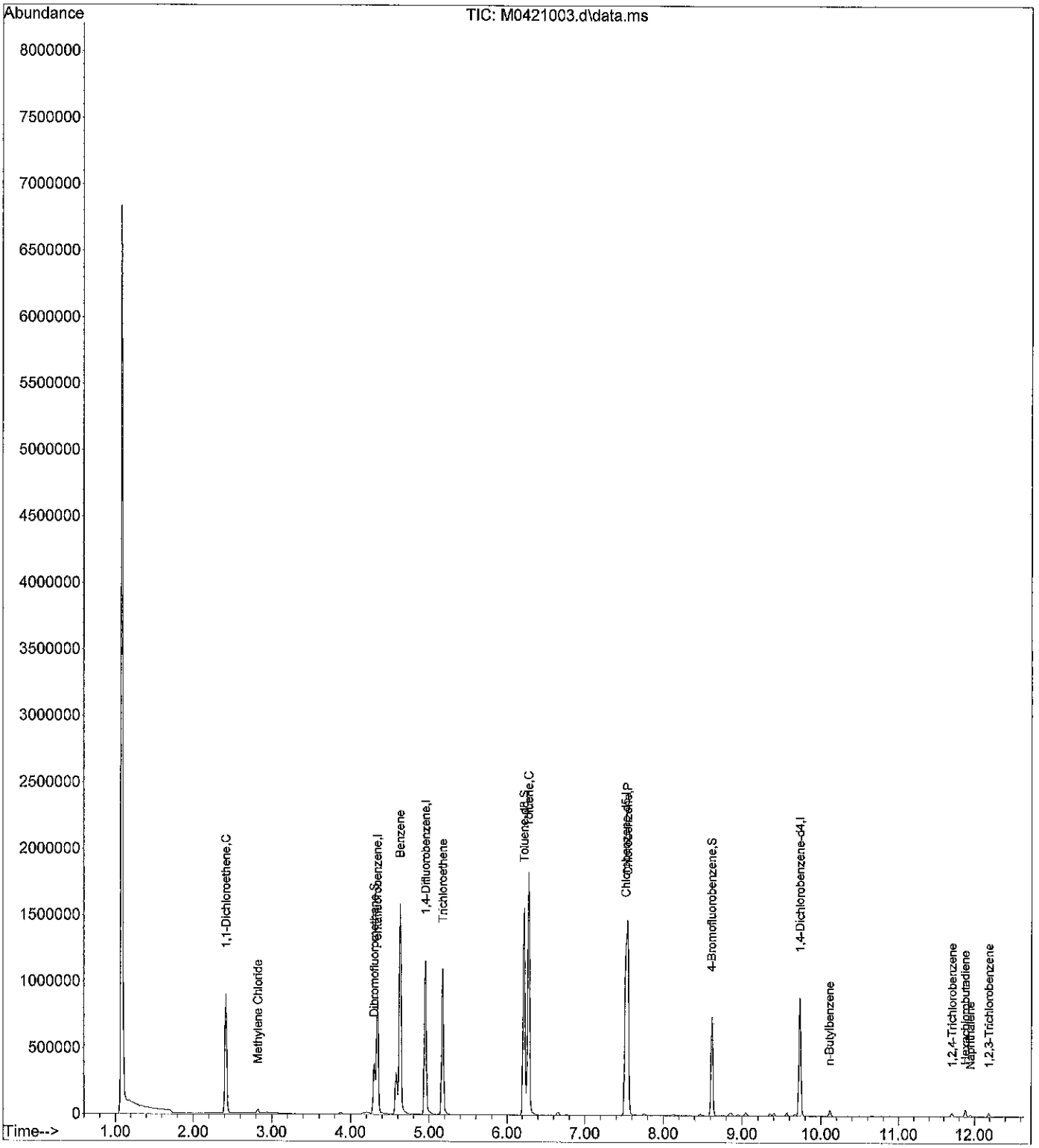
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	583615	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	851796	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	638455	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246954	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	213336	8.03	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.30%				
36) Toluene-d8	6.220	98	956216	9.53	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.30%				
54) 4-Bromofluorobenzene	8.616	95	259203	9.15	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 91.50%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	596716	8.89	ppb		100
12) Methylene Chloride	2.824	49	17811	0.31	ppb		94
26) Benzene	4.629	78	1175699	8.79	ppb		99
29) Trichloroethene	5.171	130	344421	9.17	ppb		99
37) Toluene	6.275	91	1268119	9.15	ppb		99
46) Chlorobenzene	7.543	112	732221	10.30	ppb		100
70) n-Butylbenzene	10.109	91	17669	0.23	ppb		94
72) 1,2,4-Trichlorobenzene	11.706	180	9441	1.22	ppb		98
73) Hexachlorobutadiene	11.877	225	10518	1.45	ppb		97
74) Naphthalene	11.944	128	9910	1.08	ppb		95
75) 1,2,3-Trichlorobenzene	12.188	180	8511	1.80	ppb	#	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421003.d
Acq On : 21 Apr 2014 8:39 am
Operator :
Sample : SB0421W1
Misc : V3-125-5
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 21 09:47:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421007.d
Acq On : 21 Apr 2014 10:13 am
Operator :
Sample : 04-137-01b
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 21 10:27:01 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

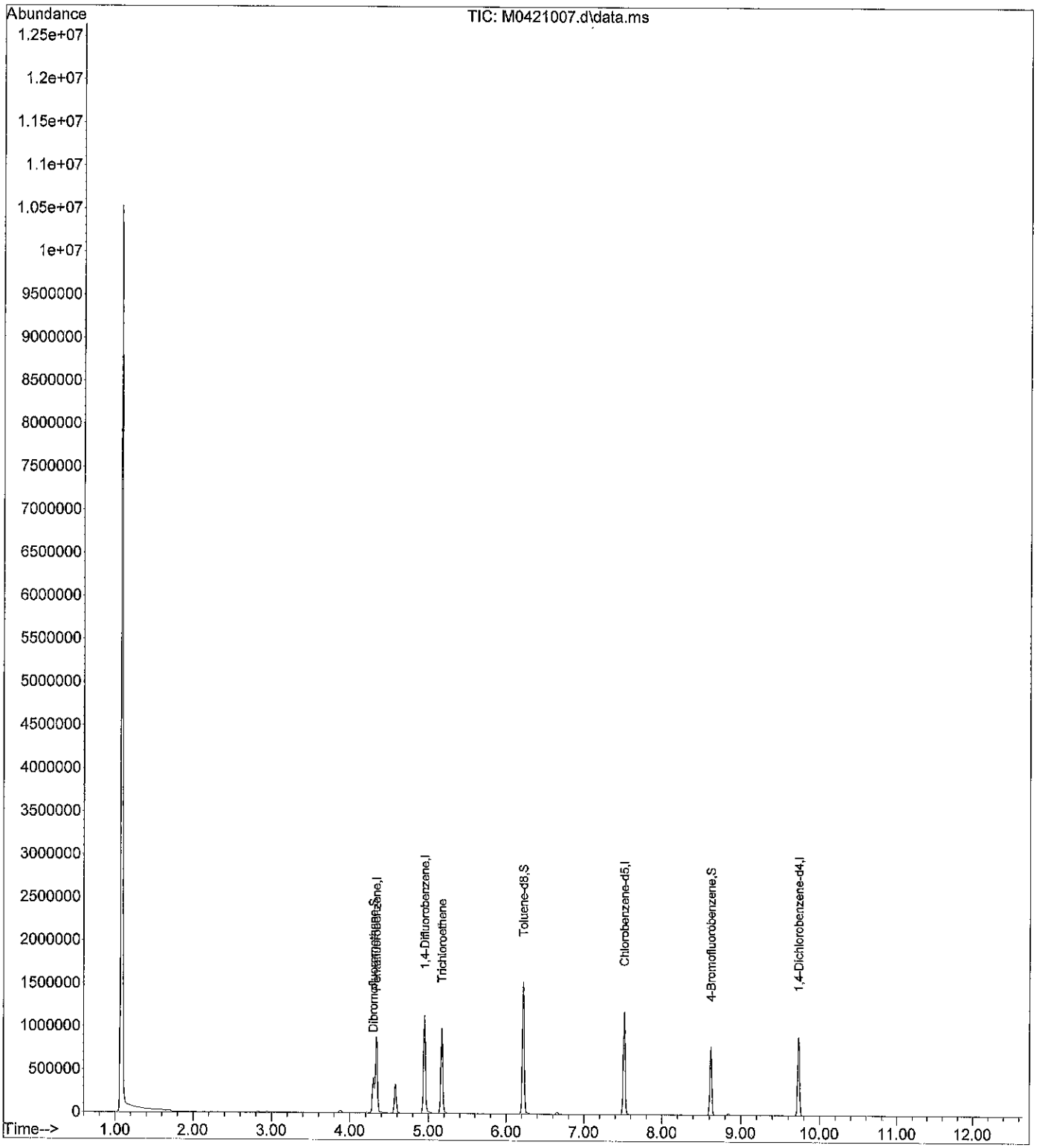
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	572939	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	840580	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	643845	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	248008	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	219418	8.41	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.10%			
36) Toluene-d8	6.220	98	950927	9.60	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.00%			
54) 4-Bromofluorobenzene	8.622	95	265459	9.29	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.90%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	311424	8.40	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421007.d
Acq On : 21 Apr 2014 10:13 am
Operator :
Sample : 04-137-01b
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 21 10:27:01 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421004.d
Acq On : 21 Apr 2014 9:03 am
Operator :
Sample : 04-137-01c MS
Misc : V3-125-5
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 21 09:48:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

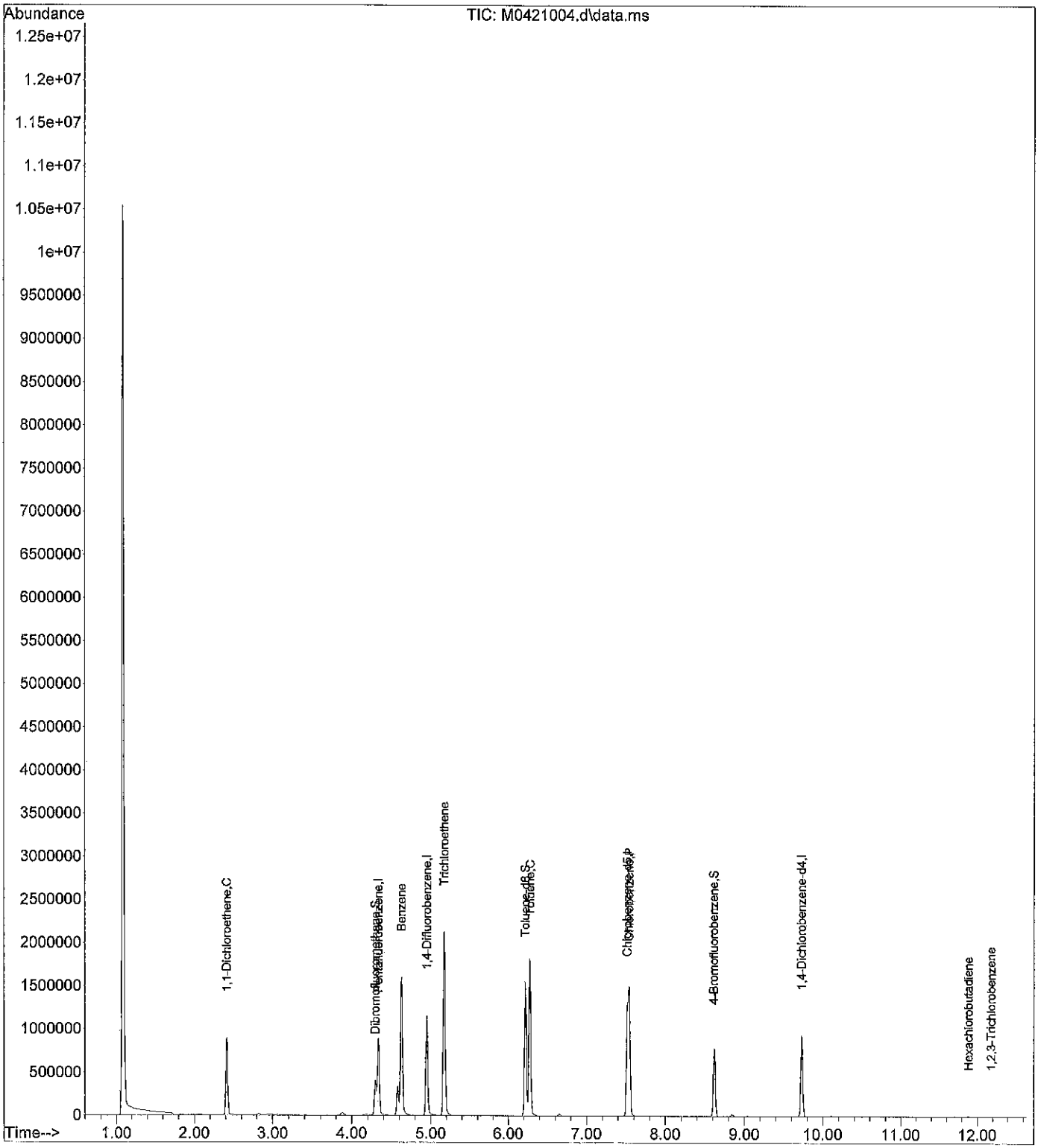
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	577702	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	854037	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	650908	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	257039	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	215973	8.21	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 82.10%				
36) Toluene-d8	6.220	98	954650	9.49	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 94.90%				
54) 4-Bromofluorobenzene	8.616	95	266730	9.23	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.30%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	575059	8.66	ppb		100
26) Benzene	4.629	78	1178102	8.90	ppb		100
29) Trichloroethene	5.171	130	665592	17.67	ppb		100
37) Toluene	6.281	91	1260297	9.07	ppb		99
46) Chlorobenzene	7.543	112	745209	10.28	ppb		100
73) Hexachlorobutadiene	11.883	225	1952	0.26	ppb		93
75) 1,2,3-Trichlorobenzene	12.182	180	1029	0.32	ppb	#	87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421004.d
Acq On : 21 Apr 2014 9:03 am
Operator :
Sample : 04-137-01c MS
Misc : V3-125-5
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 21 09:48:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421005.d
Acq On : 21 Apr 2014 9:26 am
Operator :
Sample : 04-137-01d MSD
Misc : V3-125-5
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 21 09:49:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

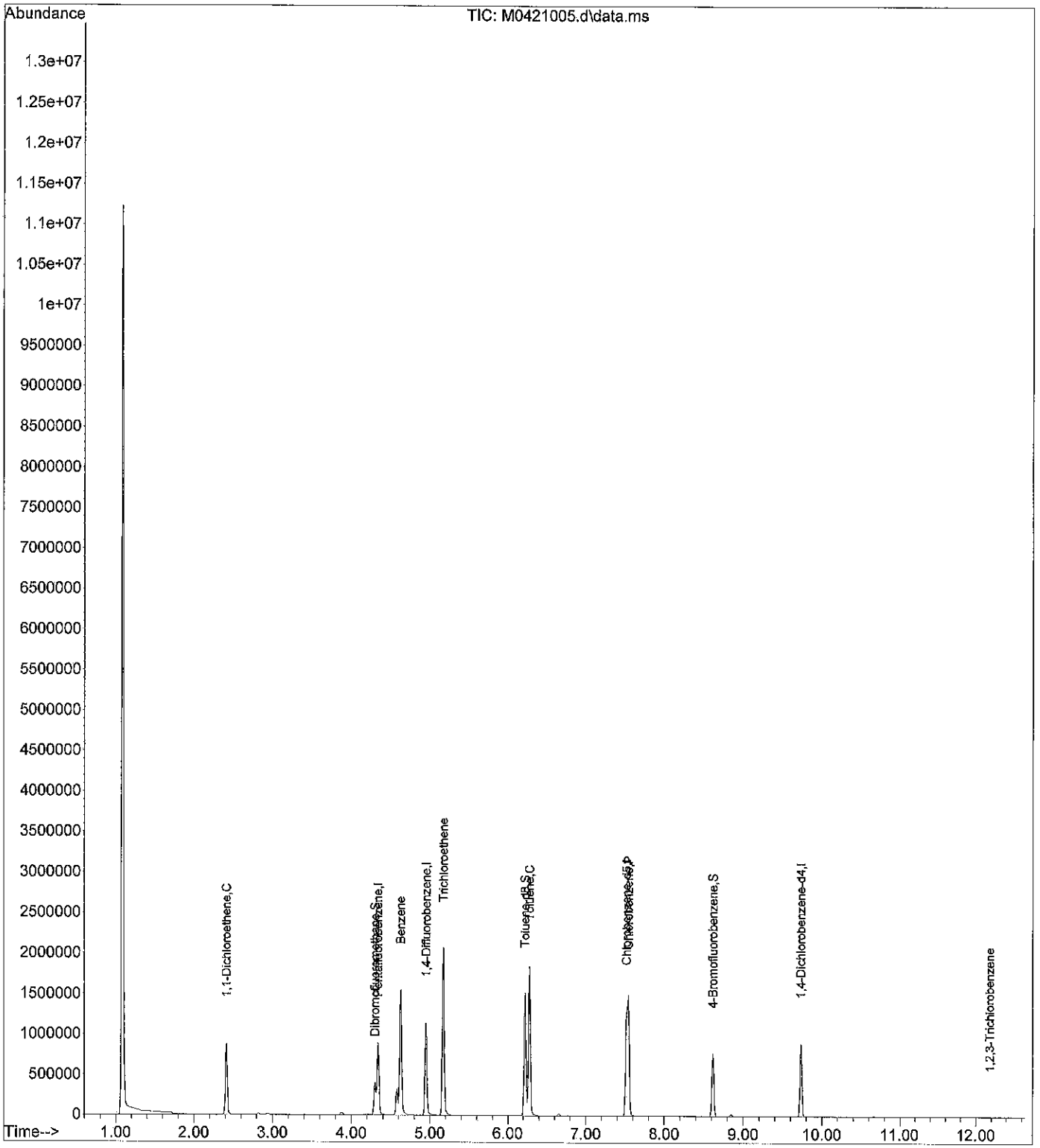
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	582849	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	844413	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	648272	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	251232	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	217940	8.21	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 82.10%				
36) Toluene-d8	6.220	98	946516	9.51	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.10%				
54) 4-Bromofluorobenzene	8.622	95	266697	9.27	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.70%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	569350	8.50	ppb		100
26) Benzene	4.629	78	1165226	8.73	ppb		100
29) Trichloroethene	5.171	130	669894	17.99	ppb		99
37) Toluene	6.275	91	1270584	9.25	ppb		100
46) Chlorobenzene	7.543	112	740051	10.25	ppb		100
75) 1,2,3-Trichlorobenzene	12.182	180	382	0.20	ppb	#	75

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421005.d
Acq On : 21 Apr 2014 9:26 am
Operator :
Sample : 04-137-01d MSD
Misc : V3-125-5
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 21 09:49:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Compound List Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014
Response Via : Initial Calibration

Total Cpnds : 75

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene	168	4.336	1.000	A	0	A	B
2		Dichlorodifluoromethane	85	1.209	0.279	A	1	A	B
3	P	Chloromethane	50	1.343	0.310	A	1	A	B
4	C	Vinyl Chloride	62	1.428	0.329	A	1	A	B
5		Bromomethane	96	1.690	0.390	A	1	A	B
6		Chloroethane	64	1.770	0.408	A	1	A	B
7		Trichlorofluoromethane	101	1.977	0.456	A	1	A	B
8	C	1,1-Dichloroethene	61	2.416	0.557	A	1	A	B
9		Acetone	43	2.471	0.570	L	1	A	B
10		Iodomethane	142	2.538	0.585	L	1	A	B
11		Carbon Disulfide	76	2.593	0.598	A	1	A	B
12		Methylene Chloride	49	2.824	0.651	A	1	A	B
13		(trans) 1,2-Dichloroethene	61	3.056	0.705	A	1	A	B
14		Methyl t-Butyl Ether	73	3.068	0.708	A	3	A	B
15	P	1,1-Dichloroethane	63	3.410	0.786	A	1	A	B
16		Vinyl Acetate	43	3.458	0.798	A	1	A	B
17		2,2-Dichloropropane	77	3.897	0.899	A	1	A	B
18		(cis) 1,2-Dichloroethene	61	3.897	0.899	A	1	A	B
19		2-Butanone	43	3.922	0.905	A	1	A	B
20		Bromochloromethane	130	4.098	0.945	A	3	A	B
21	C	Chloroform	83	4.165	0.961	A	1	A	B
22		1,1,1-Trichloroethane	97	4.318	0.996	A	1	A	B
23	S	Dibromofluoromethane	111	4.300	0.992	A	1	A	B
24		Carbon Tetrachloride	117	4.458	1.028	A	1	A	B
25		1,1-Dichloropropene	75	4.452	1.027	A	1	A	B
26		Benzene	78	4.629	1.068	A	1	A	B
27		1,2-Dichloroethane	62	4.641	1.070	A	1	A	B
28	I	1,4-Difluorobenzene	114	4.952	1.000	A	0	A	B
29		Trichloroethene	130	5.171	1.044	A	1	A	B
30	C	1,2-Dichloropropane	63	5.360	1.082	A	1	A	B
31		Dibromomethane	174	5.464	1.103	A	2	A	B
32		Bromodichloromethane	83	5.598	1.130	A	1	A	B
33		2-Chloroethyl Vinyl Ether	63	5.860	1.183	A	1	A	B
34		(cis) 1,3-Dichloropropene	75	5.982	1.208	A	1	A	B
35		Methyl Isobutyl Ketone	43	6.122	1.236	A	3	A	B
36	S	Toluene-d8	98	6.220	1.256	A	1	A	B
37	C	Toluene	91	6.275	1.267	A	1	A	B
38	I	Chlorobenzene-d5	117	7.518	1.000	A	1	A	B
39		(trans) 1,3-Dichloropropene	75	6.470	0.861	A	1	A	B
40		1,1,2-Trichloroethane	97	6.635	0.883	A	1	A	B
41		Tetrachloroethene	166	6.769	0.900	A	2	A	B
42		1,3-Dichloropropane	76	6.787	0.903	A	1	A	B
43		2-Hexanone	43	6.866	0.913	A	3	A	B
44		Dibromochloromethane	129	6.988	0.930	A	2	A	B
45		1,2-Dibromoethane	107	7.092	0.943	A	1	A	B
46	P	Chlorobenzene	112	7.543	1.003	A	1	A	B
47		1,1,1,2-Tetrachloroethane	133	7.616	1.013	A	2	A	B
48	C	Ethylbenzene	91	7.646	1.017	A	1	A	B
49		m,p-Xylene	91	7.756	1.032	A	1	A	B
50		o-Xylene	91	8.128	1.081	A	1	A	B
51		Styrene	104	8.140	1.083	A	0	A	B
52	P	Bromoform	173	8.311	1.105	A	2	A	B
53		Isopropylbenzene	105	8.476	1.127	A	1	A	B
54	S	4-Bromofluorobenzene	95	8.616	1.146	A	2	A	B

55 I	1,4-Dichlorobenzene-d4	152	9.731	1.000	A	1	A	B
56	Bromobenzene	156	8.762	0.900	A	1	A	B
57 P	1,1,2,2-Tetrachloroethane	83	8.762	0.900	A	1	A	B
58	1,2,3-Trichloropropane	75	8.799	0.904	A	1	A	B
59	n-Propylbenzene	91	8.872	0.912	A	1	A	B
60	2-Chlorotoluene	126	8.951	0.920	A	1	A	B
61	4-Chlorotoluene	126	9.055	0.931	A	1	A	B
62	1,3,5-Trimethylbenzene	105	9.043	0.929	A	1	A	B
63	tert-Butylbenzene	119	9.353	0.961	A	1	A	B
64	1,2,4-Trimethylbenzene	105	9.402	0.966	A	1	A	B
65	sec-Butylbenzene	105	9.567	0.983	A	1	A	B
66	1,3-Dichlorobenzene	146	9.670	0.994	A	1	A	B
67	p-Isopropyltoluene	119	9.713	0.998	A	1	A	B
68	1,4-Dichlorobenzene	146	9.756	1.003	A	1	A	B
69	1,2-Dichlorobenzene	146	10.116	1.040	A	1	A	B
70	n-Butylbenzene	91	10.109	1.039	A	1	A	B
71	1,2-Dibromo-3-chloropropane	157	10.884	1.118	A	2	A	B
72	1,2,4-Trichlorobenzene	180	11.701	1.202	A	2	A	B
73	Hexachlorobutadiene	225	11.883	1.221	A	2	A	B
74	Naphthalene	128	11.944	1.227	A	1	A	B
75	1,2,3-Trichlorobenzene	180	12.182	1.252	L	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

M140328W.M Fri Mar 28 13:13:22 2014

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014
Response Via : Initial Calibration

Calibration Files
.2 =M0328003.d 1 =M0328004.d 2 =M0328005.d 5 =M0328006.d 10 =M0328007.d 25 =M0328009.d
50 =M0328011.d .1 =M0716005.d

		Compound	.2	1	2	5	10	25	50	.1	Avg	%RSD
		ISTD										
1)	I	Pentafluorobenzene									0.767#	10.86
2)		Dichlorodifluo...	0.731	0.674	0.745	0.721	0.732	0.902	0.866		1.186	7.07
3)	P	Chloromethane	1.322	1.085	1.163	1.119	1.136	1.255	1.220		0.999#	5.52#
4)	C	Vinyl Chloride	1.043	0.912	0.981	0.959	0.988	1.068	1.043		0.475#	8.17
5)		Bromomethane	0.556	0.485	0.468	0.441	0.450	0.468	0.455		0.524#	8.82
6)		Chloroethane	0.625	0.496	0.509	0.492	0.506	0.527	0.513		1.076#	4.44
7)		Trichlorofluor...	1.156	1.019	1.056	1.033	1.070	1.117	1.080		1.150#	4.28#
8)	C	1,1-Dichloroet...	1.241	1.098	1.119	1.116	1.139	1.185	1.149		0.079#	15.41
9)		Acetone		0.091	0.094	0.079	0.071	0.071	0.065		0.707#	15.14
10)		Iodomethane		0.538	0.633	0.703	0.753	0.828	0.787		1.828#	4.27
11)		Carbon Disulfide	1.915	1.725	1.786	1.757	1.809	1.917	1.887		0.989#	9.22
12)		Methylene Chlo...	1.192	0.974	0.974	0.934	0.942	0.966	0.942		1.158#	5.43
13)		(trans) 1,2-Di...	1.274	1.090	1.151	1.091	1.147	1.190	1.161		0.729#	1.91
14)		Methyl t-Butyl...	0.739	0.711	0.732	0.724	0.712	0.737	0.748		1.319	2.47
15)	P	1,1-Dichloroet...	1.345	1.272	1.313	1.288	1.313	1.365	1.339		0.558#	6.53
16)		Vinyl Acetate		0.614	0.569	0.542	0.518	0.545			0.842#	2.31
17)		2,2-Dichloropr...	0.870	0.833	0.840	0.814	0.843	0.864	0.832		1.218#	3.17
18)		(cis) 1,2-Dich...	1.198	1.187	1.196	1.189	1.212	1.281	1.265		0.121#	4.60
19)		2-Butanone	0.125	0.124	0.129	0.120	0.116	0.119	0.113		0.255#	2.79
20)		Bromochloromet...	0.248	0.246	0.258	0.251	0.256	0.264	0.263		1.043#	3.72#
21)	C	Chloroform	1.120	1.006	1.026	1.020	1.022	1.063	1.041		1.005#	2.90
22)		1,1,1-Trichlor...	1.045	0.986	0.979	0.971	1.000	1.040	1.016		0.455#	2.52
23)	S	Dibromofluorom...	0.432	0.452	0.466	0.464	0.455	0.460	0.459		0.939#	4.33
24)		Carbon Tetrach...	1.007	0.907	0.921	0.894	0.918	0.975	0.953		0.871#	5.40
25)		1,1-Dichloropr...	0.957	0.826	0.855	0.825	0.850	0.898	0.887		2.291#	3.64
26)		Benzene	2.426	2.214	2.226	2.215	2.261	2.360	2.336		0.634#	1.46
27)		1,2-Dichloroet...	0.629	0.625	0.641	0.627	0.635	0.651	0.634			
		ISTD										
28)	I	1,4-Difluorobenzene									0.441#	5.29
29)		Trichloroethene	0.485	0.417	0.432	0.425	0.433	0.460	0.435		0.403#	3.55#
30)	C	1,2-Dichloropr...	0.380	0.396	0.404	0.399	0.397	0.420	0.421		0.129#	6.02
31)		Dibromomethane	0.113	0.127	0.135	0.131	0.129	0.135	0.134		0.400#	4.69
32)		Bromodichlorom...	0.366	0.406	0.402	0.392	0.396	0.417	0.423		0.022#	11.46
33)		2-Chloroethyl ...		0.019	0.022	0.020	0.020	0.022	0.026		0.411#	9.25
34)		(cis) 1,3-Dich...	0.357	0.379	0.399	0.410	0.417	0.457	0.460		0.147#	6.45
35)		Methyl Isobuty...	0.150	0.133	0.150	0.144	0.139	0.152	0.162		1.178#	1.16
36)	S	Toluene-d8	1.157	1.169	1.180	1.181	1.176	1.184	1.201		1.628#	4.88#
37)	C	Toluene	1.762	1.581	1.569	1.556	1.567	1.668	1.689			

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :

38)	I	Chlorobenzene-d5	ISTD								
39)		(trans) 1,3-Di...	0.329	0.326	0.342	0.341	0.362	0.382	0.382	0.352#	6.74
40)		1,1,2-Trichlor...	0.258	0.200	0.201	0.200	0.200	0.213	0.208	0.212#	10.00
41)		Tetrachloroethene	0.585	0.541	0.533	0.515	0.537	0.563	0.545	0.546#	4.10
42)		1,3-Dichloropr...	0.363	0.346	0.364	0.369	0.371	0.386	0.377	0.368#	3.43
43)		2-Hexanone	0.142	0.125	0.116	0.123	0.117	0.132	0.130	0.126#	7.09
44)		Dibromochlorom...	0.253	0.266	0.266	0.270	0.273	0.293	0.293	0.273#	5.38
45)		1,2-Dibromoethane	0.177	0.186	0.186	0.186	0.183	0.193	0.185	0.185#	2.57
46)	P	Chlorobenzene	1.255	1.079	1.070	1.047	1.080	1.139	1.123	1.113	6.29
47)		1,1,1,2-Tetrac...	0.341	0.354	0.343	0.353	0.362	0.379	0.379	0.359#	4.32
48)	C	Ethylbenzene	2.325	1.997	2.059	2.064	2.191	2.361	2.310	2.186#	6.78#
49)		m,p-Xylene	1.605	1.490	1.545	1.591	1.662	1.789	1.770	1.636#	6.82
50)		o-Xylene	1.494	1.366	1.422	1.447	1.507	1.624	1.603	1.495#	6.27
51)		Styrene	1.023	0.990	1.056	1.103	1.149	1.243	1.236	1.114#	8.97
52)	P	Bromoform	0.125	0.127	0.132	0.139	0.140	0.153	0.158	0.139	9.15
53)		Isopropylbenzene	1.831	1.673	1.754	1.804	1.913	2.064	2.019	1.865#	7.57
54)	S	4-Bromofluorob...	0.413	0.435	0.446	0.452	0.454	0.456	0.452	0.444#	3.48
55)	I	1,4-Dichlorobenzen...	ISTD								
56)		Bromobenzene	1.034	0.877	0.855	0.847	0.875	0.937	0.909	0.905#	7.16
57)	P	1,1,2,2-Tetrac...	0.459	0.445	0.425	0.427	0.414	0.440	0.458	0.438	3.93
58)		1,2,3-Trichlor...	0.352	0.338	0.369	0.338	0.335	0.349	0.341	0.346#	3.40
59)		n-Propylbenzene	6.049	4.935	4.930	4.942	5.346	5.647	5.494	5.335#	8.07
60)		2-Chlorotoluene	1.149	0.992	0.967	0.946	1.025	1.084	1.032	1.028#	6.82
61)		4-Chlorotoluene	1.079	0.964	0.958	0.954	1.011	1.056	1.040	1.009#	5.06
62)		1,3,5-Trimethy...	3.976	3.290	3.584	3.576	3.875	4.120	4.024	3.778#	7.96
63)		tert-Butylbenzene	3.231	2.588	2.781	2.779	3.103	3.224	3.128	2.977#	8.60
64)		1,2,4-Trimethy...	3.625	3.172	3.266	3.380	3.588	3.771	3.711	3.502#	6.57
65)		sec-Butylbenzene	4.557	3.886	3.983	4.040	4.421	4.650	4.517	4.293#	7.30
66)		1,3-Dichlorobe...	1.683	1.484	1.540	1.486	1.544	1.611	1.593	1.563#	4.57
67)		p-Isopropyltol...	3.569	2.941	3.184	3.180	3.473	3.704	3.617	3.381#	8.34
68)		1,4-Dichlorobe...	1.842	1.506	1.586	1.565	1.606	1.679	1.655	1.634#	6.61
69)		1,2-Dichlorobe...	1.147	1.061	1.102	1.111	1.127	1.195	1.194	1.134#	4.31
70)		n-Butylbenzene	3.362	2.757	2.828	2.927	3.122	3.314	3.297	3.086#	8.09
71)		1,2-Dibromo-3-...		0.040	0.049	0.048	0.050	0.056	0.056	0.050#	11.77
72)		1,2,4-Trichlor...	0.294	0.266	0.307	0.323	0.312	0.332	0.356	0.313#	9.10
73)		Hexachlorobuta...	0.353	0.269	0.277	0.291	0.281	0.290	0.290	0.293#	9.51
74)		Naphthalene		0.325	0.338	0.368	0.366	0.397	0.439	0.372#	11.18
75)		1,2,3-Trichlor...	0.123	0.149	0.177	0.203	0.199	0.196	0.211	0.180#	18.07

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	485934	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	740470	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	555715	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	198284	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.293	111	209890	9.62	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery	= 96.20%			
36) Toluene-d8	6.220	98	856932	9.84	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery	= 98.40%			
54) 4-Bromofluorobenzene	8.616	95	229303	9.00	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery	= 90.00%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	7107	0.19	ppb		100
3) Chloromethane	1.343	50	12848	0.22	ppb		100
4) Vinyl Chloride	1.428	62	10132	0.21	ppb		92
5) Bromomethane	1.684	96	5406	0.24	ppb		94
6) Chloroethane	1.763	64	6077	0.24	ppb		98
7) Trichlorofluoromethane	1.977	101	11235	0.22	ppb		97
8) 1,1-Dichloroethene	2.416	61	12064	0.22	ppb		99
9) ~~Acetone~~	2.465	43	3046	0.32	ppb		92
10) ~~Iodomethane~~	2.538	142	4255	0.53	ppb		96
11) Carbon Disulfide	2.593	76	18609	0.21	ppb		95
12) Methylene Chloride	2.824	49	11589	0.24	ppb		97
13) (trans) 1,2-Dichloroet...	3.056	61	12377	0.23	ppb		99
14) Methyl t-Butyl Ether	3.068	73	7179	0.20	ppb	#	88
15) 1,1-Dichloroethane	3.410	63	13071	0.21	ppb		96
16) ~~Vinyl Acetate~~	3.458	43	7482	0.66	ppb	#	81
17) 2,2-Dichloropropane	3.891	77	8459	0.20	ppb	#	78
18) (cis) 1,2-Dichloroethene	3.897	61	11646	0.20	ppb		96
19) 2-Butanone	3.916	43	1217	0.21	ppb	#	52
20) Bromochloromethane	4.092	130	2414	0.20	ppb		97
21) Chloroform	4.165	83	10889	0.22	ppb		98
22) 1,1,1-Trichloroethane	4.312	97	10155	0.21	ppb	#	1
24) Carbon Tetrachloride	4.452	117	9784	0.22	ppb		98
25) 1,1-Dichloropropene	4.452	75	9303	0.22	ppb		95
26) Benzene	4.629	78	23574	0.22	ppb		97
27) 1,2-Dichloroethane	4.641	62	6112	0.20	ppb		94
29) Trichloroethene	5.171	130	7176	0.23	ppb		90
30) 1,2-Dichloropropane	5.360	63	5631	0.19	ppb		95
31) Dibromomethane	5.458	174	1675	0.17	ppb	#	91
32) Bromodichloromethane	5.598	83	5416	0.18	ppb		91
33) ~~2-Chloroethyl Vinyl Ether~~	5.860	63	266	2.33	ppb	#	66
34) (cis) 1,3-Dichloropropene	5.982	75	5288	0.17	ppb		97
35) Methyl Isobutyl Ketone	6.122	43	2224	0.21	ppb	#	86
37) Toluene	6.275	91	26096	0.22	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	3652	0.19	ppb		95
40) 1,1,2-Trichloroethane	6.634	97	2870	0.25	ppb	#	81
41) Tetrachloroethene	6.763	166	6500	0.21	ppb		92
42) 1,3-Dichloropropane	6.787	76	4030	0.20	ppb		90
43) 2-Hexanone	6.866	43	1575	0.23	ppb	#	69
44) Dibromochloromethane	6.988	129	2814	0.19	ppb		95

SP 3-28-14

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	1962	0.20	ppb		100
46) Chlorobenzene	7.543	112	13952	0.23	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	3793	0.19	ppb		84
48) Ethylbenzene	7.646	91	25838	0.21	ppb		100
49) m,p-Xylene	7.756	91	35667	0.38	ppb		97
50) o-Xylene	8.128	91	16600	0.19	ppb		100
51) Styrene	8.140	104	11365	0.18	ppb		100
52) Bromoform	8.311	173	1384	0.18	ppb		93
53) Isopropylbenzene	8.476	105	20353	0.19	ppb		96
56) Bromobenzene	8.762	156	4101	0.24	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	1819	0.22	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	1394	0.22	ppb	#	100
59) n-Propylbenzene	8.872	91	23987	0.24	ppb		96
60) 2-Chlorotoluene	8.951	126	4557	0.23	ppb		98
61) 4-Chlorotoluene	9.055	126	4278	0.22	ppb		96
62) 1,3,5-Trimethylbenzene	9.043	105	15766	0.21	ppb		96
63) tert-Butylbenzene	9.353	119	12815	0.22	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	14377	0.20	ppb		97
65) sec-Butylbenzene	9.567	105	18071	0.21	ppb		96
66) 1,3-Dichlorobenzene	9.670	146	6674	0.21	ppb		100
67) p-Isopropyltoluene	9.713	119	14152	0.20	ppb		98
68) 1,4-Dichlorobenzene	9.756	146	7304	0.22	ppb		92
69) 1,2-Dichlorobenzene	10.116	146	4547	0.19	ppb		99
70) n-Butylbenzene	10.109	91	13331	0.20	ppb		99
72) 1,2,4-Trichlorobenzene	11.707	180	1167	0.10	ppb		93
73) Hexachlorobutadiene	11.877	225	1401	0.12	ppb		95
74) Naphthalene	11.944	128	1039	0.61	ppb	#	72
75) 1,2,3-Trichlorobenzene	12.188	180	489	0.21	ppb	#	67

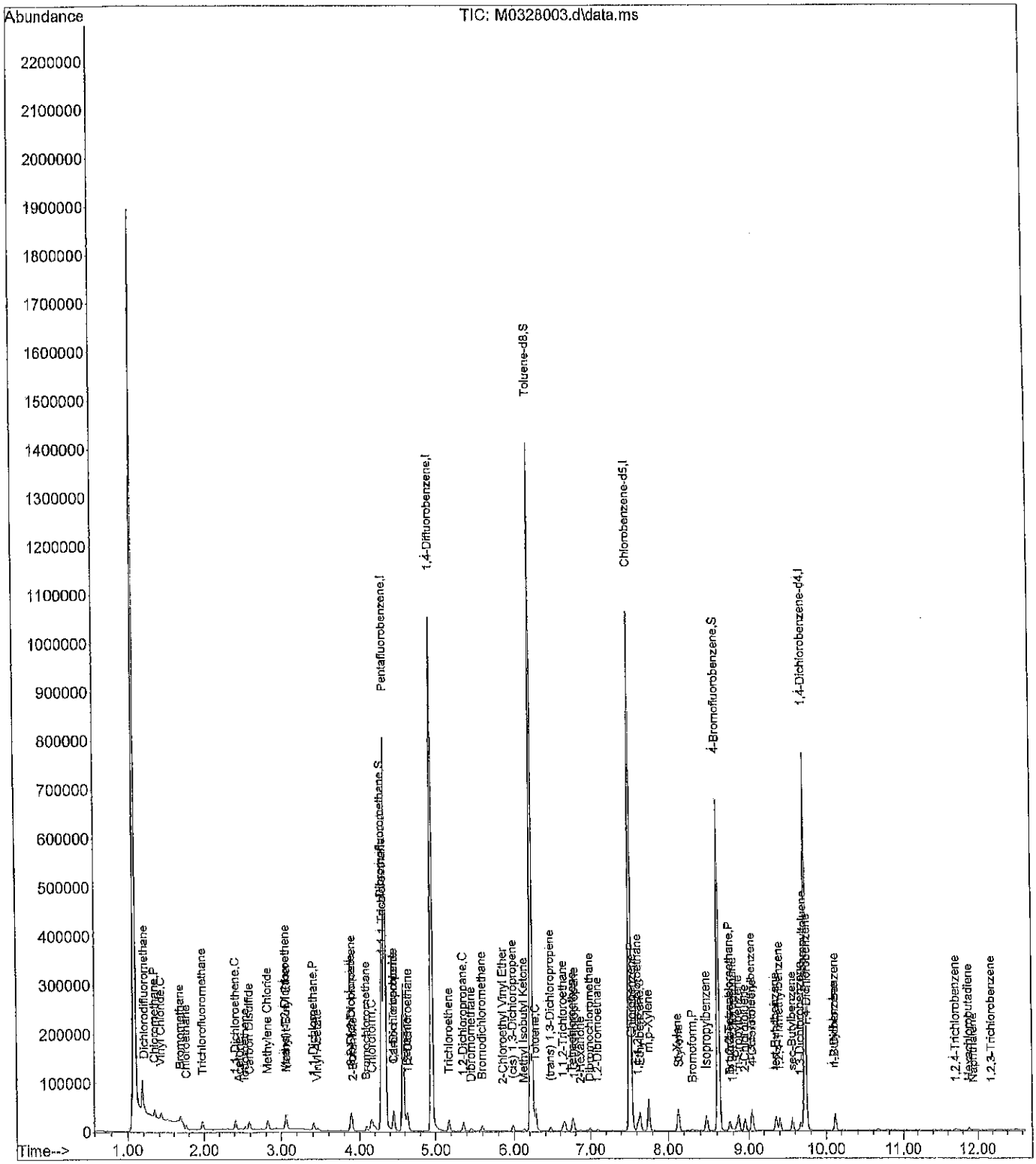
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SP 3,8674

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	481933	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	739712	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	582356	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	231509	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	217611	10.05	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.50%				
36) Toluene-d8	6.220	98	864840	9.94	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.40%				
54) 4-Bromofluorobenzene	8.622	95	253379	9.49	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.208	85	32485	0.86	ppb		98
3) Chloromethane	1.343	50	52278	0.91	ppb		94
4) Vinyl Chloride	1.428	62	43937	0.93	ppb		97
5) Bromomethane	1.684	96	23394	1.06	ppb		100
6) Chloroethane	1.769	64	23889	0.96	ppb		100
7) Trichlorofluoromethane	1.977	101	49091	0.95	ppb		97
8) 1,1-Dichloroethene	2.416	61	52907	0.97	ppb		100
9) Acetone	2.470	43	4405	0.76	ppb		99
10) Iodomethane	2.537	142	25915	1.10	ppb		95
11) Carbon Disulfide	2.592	76	83153	0.97	ppb		100
12) Methylene Chloride	2.824	49	46955	0.99	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	52507	0.97	ppb		97
14) Methyl t-Butyl Ether	3.068	73	34289	0.98	ppb		96
15) 1,1-Dichloroethane	3.409	63	61308	0.98	ppb		99
16) Vinyl Acetate	3.458	43	29613	1.27	ppb		98
17) 2,2-Dichloropropane	3.891	77	40125	0.98	ppb		97
18) (cis) 1,2-Dichloroethene	3.897	61	57200	0.99	ppb		99
19) 2-Butanone	3.921	43	5999	1.04	ppb		92
20) Bromochloromethane	4.098	130	11861	0.97	ppb		99
21) Chloroform	4.165	83	48474	0.99	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	47516	0.98	ppb	#	1
24) Carbon Tetrachloride	4.458	117	43733	0.97	ppb		94
25) 1,1-Dichloropropene	4.452	75	39817	0.96	ppb		97
26) Benzene	4.629	78	106694	0.99	ppb		99
27) 1,2-Dichloroethane	4.641	62	30108	1.00	ppb		99
29) Trichloroethene	5.171	130	30865	0.98	ppb		99
30) 1,2-Dichloropropane	5.360	63	29302	0.98	ppb		100
31) Dibromomethane	5.464	174	9426	0.98	ppb		96
32) Bromodichloromethane	5.598	83	30058	1.02	ppb		97
33) 2-Chloroethyl Vinyl Ether	5.860	63	1418	3.82	ppb		99
34) (cis) 1,3-Dichloropropene	5.982	75	28003	0.90	ppb		98
35) Methyl Isobutyl Ketone	6.122	43	9833	0.91	ppb		97
37) Toluene	6.275	91	116964	0.97	ppb		97
39) (trans) 1,3-Dichloropr...	6.470	75	18996	0.93	ppb		96
40) 1,1,2-Trichloroethane	6.634	97	11672	0.96	ppb		94
41) Tetrachloroethene	6.768	166	31504	0.98	ppb		97
42) 1,3-Dichloropropane	6.787	76	20143	0.94	ppb		99
43) 2-Hexanone	6.866	43	7271	1.02	ppb	#	92
44) Dibromochloromethane	6.988	129	15481	0.97	ppb		95

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

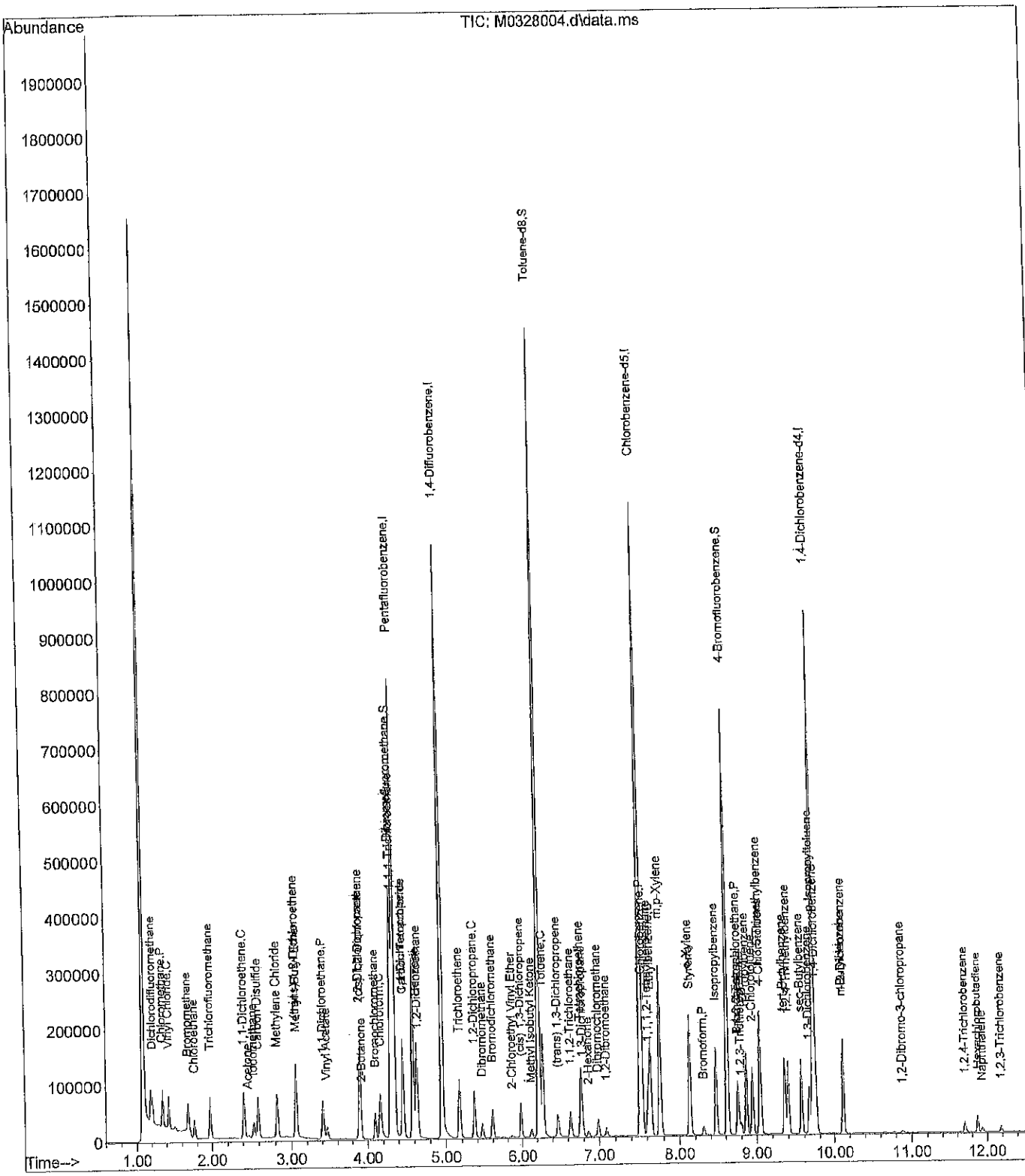
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.091	107	10813	1.03	ppb		89
46) Chlorobenzene	7.543	112	62839	0.97	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	20602	0.97	ppb		97
48) Ethylbenzene	7.646	91	116277	0.89	ppb		100
49) m,p-Xylene	7.756	91	173593	1.77	ppb		100
50) o-Xylene	8.128	91	79577	0.88	ppb		99
51) Styrene	8.140	104	57652	0.86	ppb		100
52) Bromoform	8.311	173	7371	0.89	ppb		96
53) Isopropylbenzene	8.475	105	97419	0.85	ppb		98
56) Bromobenzene	8.762	156	20310	1.04	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	10308	1.07	ppb		93
58) 1,2,3-Trichloropropane	8.798	75	7814	1.06	ppb	#	100
59) n-Propylbenzene	8.872	91	114247	0.97	ppb		99
60) 2-Chlorotoluene	8.951	126	22971	1.01	ppb		99
61) 4-Chlorotoluene	9.055	126	22328	0.99	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	76170	0.87	ppb		99
63) tert-Butylbenzene	9.353	119	59923	0.88	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	73440	0.87	ppb		98
65) sec-Butylbenzene	9.567	105	89955	0.89	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	34360	0.92	ppb		100
67) p-Isopropyltoluene	9.713	119	68086	0.82	ppb		97
68) 1,4-Dichlorobenzene	9.756	146	34860	0.89	ppb		94
69) 1,2-Dichlorobenzene	10.115	146	24567	0.87	ppb		100
70) n-Butylbenzene	10.109	91	63817	0.81	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.883	157	932	0.72	ppb	#	64
72) 1,2,4-Trichlorobenzene	11.706	180	6168	0.46	ppb		90
73) Hexachlorobutadiene	11.883	225	6218	0.47	ppb		97
74) Naphthalene	11.944	128	7514	0.99	ppb	#	94
75) 1,2,3-Trichlorobenzene	12.188	180	3448	0.52	ppb		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	479547	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	741239	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	592815	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	240183	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	223417	10.37	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.70%				
36) Toluene-d8	6.220	98	874445	10.03	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.30%				
54) 4-Bromofluorobenzene	8.622	95	264503	9.74	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	71435	1.89	ppb		100
3) Chloromethane	1.343	50	111552	1.95	ppb		100
4) Vinyl Chloride	1.428	62	94040	2.00	ppb		99
5) Bromomethane	1.690	96	44871	2.05	ppb		99
6) Chloroethane	1.769	64	48789	1.97	ppb		96
7) Trichlorofluoromethane	1.977	101	101236	1.97	ppb		99
8) 1,1-Dichloroethene	2.416	61	107339	1.98	ppb		100
9) Acetone	2.470	43	9060	2.24	ppb		96
10) Iodomethane	2.538	142	60687	2.01	ppb		99
11) Carbon Disulfide	2.592	76	171279	2.00	ppb		97
12) Methylene Chloride	2.824	49	93388	1.98	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	110387	2.06	ppb		100
14) Methyl t-Butyl Ether	3.068	73	70253	2.02	ppb		98
15) 1,1-Dichloroethane	3.409	63	125922	2.02	ppb		98
16) Vinyl Acetate	3.458	43	54537	1.97	ppb		98
17) 2,2-Dichloropropane	3.891	77	80592	1.97	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	114722	1.99	ppb		99
19) 2-Butanone	3.921	43	12367	2.16	ppb		91
20) Bromochloromethane	4.098	130	24764	2.04	ppb		97
21) Chloroform	4.165	83	98372	2.01	ppb		98
22) 1,1,1-Trichloroethane	4.318	97	93941	1.95	ppb	#	1
24) Carbon Tetrachloride	4.458	117	88301	1.97	ppb		100
25) 1,1-Dichloropropene	4.452	75	82043	1.99	ppb		100
26) Benzene	4.629	78	213449	1.99	ppb		100
27) 1,2-Dichloroethane	4.641	62	61512	2.06	ppb		99
29) Trichloroethene	5.171	130	64112	2.02	ppb		93
30) 1,2-Dichloropropane	5.360	63	59895	2.01	ppb		100
31) Dibromomethane	5.464	174	20052	2.08	ppb		99
32) Bromodichloromethane	5.598	83	59547	2.02	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	3284	6.24	ppb		100
34) (cis) 1,3-Dichloropropene	5.982	75	59196	1.90	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	22165	2.05	ppb		98
37) Toluene	6.275	91	232630	1.92	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	40523	1.94	ppb		100
40) 1,1,2-Trichloroethane	6.634	97	23818	1.92	ppb		94
41) Tetrachloroethene	6.768	166	63251	1.94	ppb		98
42) 1,3-Dichloropropane	6.787	76	43185	1.98	ppb		99
43) 2-Hexanone	6.866	43	13779	1.89	ppb		99
44) Dibromochloromethane	6.988	129	31574	1.95	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

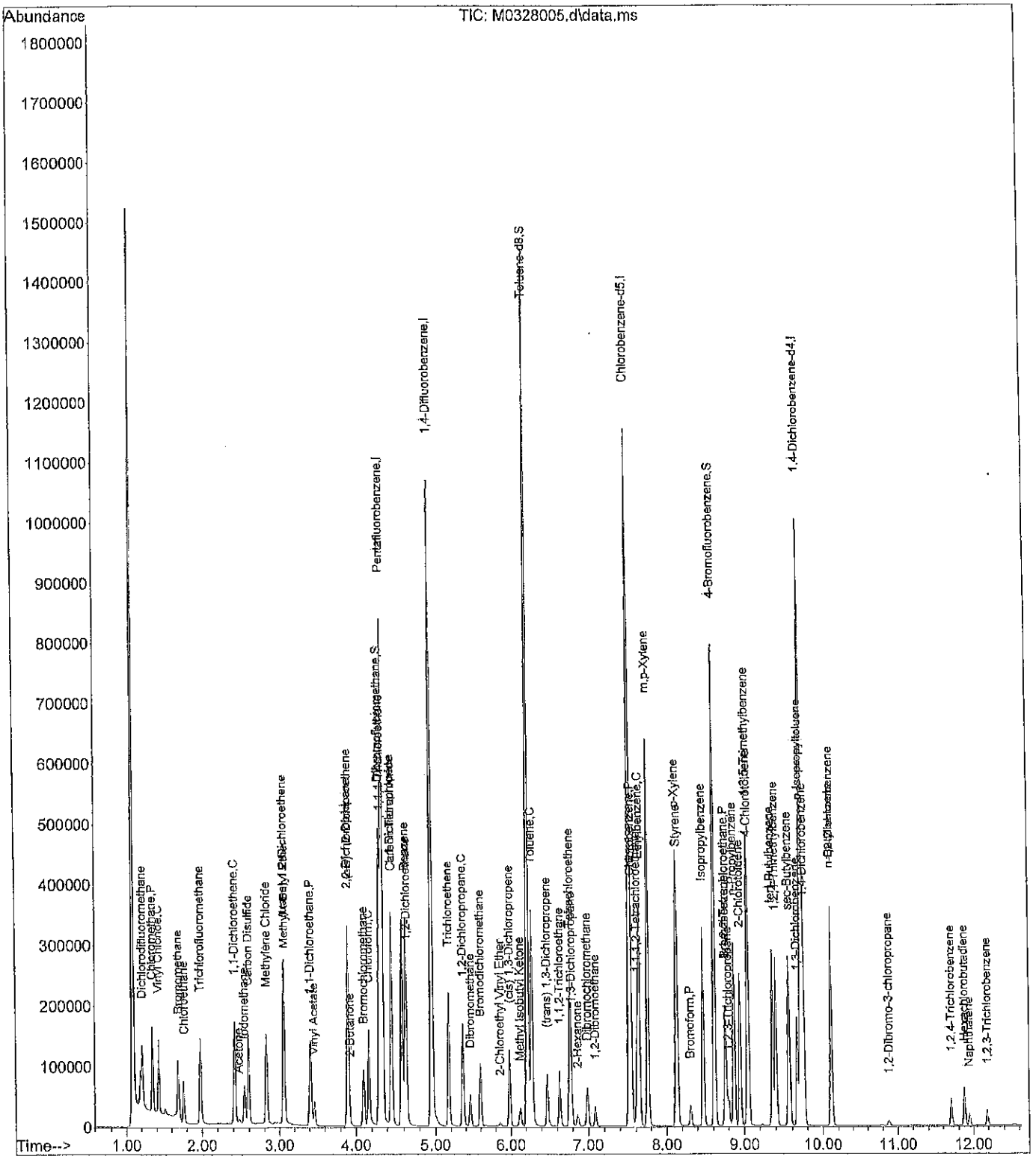
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	22108	2.07	ppb		94
46) Chlorobenzene	7.543	112	126905	1.93	ppb		98
47) 1,1,1,2-Tetrachloroethane	7.616	133	40634	1.89	ppb		97
48) Ethylbenzene	7.646	91	244080	1.84	ppb		99
49) m,p-Xylene	7.756	91	366249	3.67	ppb		100
50) o-Xylene	8.128	91	168553	1.82	ppb		99
51) Styrene	8.140	104	125222	1.84	ppb		100
52) Bromoform	8.311	173	15623	1.86	ppb		98
53) Isopropylbenzene	8.475	105	207918	1.79	ppb		99
56) Bromobenzene	8.762	156	41070	2.02	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	20399	2.05	ppb		97
58) 1,2,3-Trichloropropane	8.799	75	17704	2.32	ppb	#	100
59) n-Propylbenzene	8.872	91	236825	1.94	ppb		99
60) 2-Chlorotoluene	8.951	126	46452	1.98	ppb		97
61) 4-Chlorotoluene	9.055	126	46002	1.98	ppb		95
62) 1,3,5-Trimethylbenzene	9.042	105	172160	1.90	ppb		100
63) tert-Butylbenzene	9.353	119	133577	1.88	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	156865	1.80	ppb		98
65) sec-Butylbenzene	9.567	105	191336	1.83	ppb		100
66) 1,3-Dichlorobenzene	9.670	146	73967	1.92	ppb		96
67) p-Isopropyltoluene	9.713	119	152932	1.78	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	76190	1.87	ppb		96
69) 1,2-Dichlorobenzene	10.115	146	52952	1.80	ppb		99
70) n-Butylbenzene	10.109	91	135827	1.67	ppb		98
71) 1,2-Dibromo-3-chloropr...	10.883	157	2368	1.76	ppb		98
72) 1,2,4-Trichlorobenzene	11.706	180	14738	1.05	ppb		94
73) Hexachlorobutadiene	11.883	225	13288	0.97	ppb		99
74) Naphthalene	11.944	128	16224	1.48	ppb		97
75) 1,2,3-Trichlorobenzene	12.188	180	8510	1.04	ppb		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	487403	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	747722	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	596122	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	250793	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	226293	10.34	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.40%				
36) Toluene-d8	6.220	98	883353	10.04	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.40%				
54) 4-Bromofluorobenzene	8.616	95	269266	9.86	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	175706	4.58	ppb		100
3) Chloromethane	1.343	50	272665	4.68	ppb		99
4) Vinyl Chloride	1.428	62	233677	4.89	ppb		100
5) Bromomethane	1.684	96	107522	4.84	ppb		99
6) Chloroethane	1.770	64	119788	4.76	ppb		100
7) Trichlorofluoromethane	1.977	101	251859	4.81	ppb		99
8) 1,1-Dichloroethene	2.416	61	271961	4.94	ppb		98
9) Acetone	2.471	43	19243	5.36	ppb		100
10) Iodomethane	2.538	142	171354	4.82	ppb		99
11) Carbon Disulfide	2.593	76	428232	4.92	ppb		100
12) Methylene Chloride	2.824	49	227594	4.76	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	265907	4.87	ppb		98
14) Methyl t-Butyl Ether	3.068	73	176485	4.99	ppb		98
15) 1,1-Dichloroethane	3.409	63	313941	4.94	ppb		98
16) Vinyl Acetate	3.458	43	132036	4.05	ppb		100
17) 2,2-Dichloropropane	3.891	77	198435	4.78	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	289717	4.95	ppb		100
19) 2-Butanone	3.922	43	29280	5.04	ppb		95
20) Bromochloromethane	4.098	130	61061	4.94	ppb		97
21) Chloroform	4.165	83	248538	5.00	ppb		100
22) 1,1,1-Trichloroethane	4.318	97	236699	4.83	ppb	#	48
24) Carbon Tetrachloride	4.458	117	217779	4.78	ppb		99
25) 1,1-Dichloropropene	4.452	75	201088	4.81	ppb		99
26) Benzene	4.629	78	539722	4.94	ppb		100
27) 1,2-Dichloroethane	4.641	62	152728	5.02	ppb		100
29) Trichloroethene	5.171	130	158883	4.97	ppb		97
30) 1,2-Dichloropropane	5.360	63	149194	4.96	ppb		98
31) Dibromomethane	5.464	174	48876	5.02	ppb		96
32) Bromodichloromethane	5.598	83	146557	4.93	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	7478	11.60	ppb	#	90
34) (cis) 1,3-Dichloropropene	5.982	75	153320	4.87	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	53853	4.94	ppb		96
37) Toluene	6.275	91	581598	4.77	ppb		98
39) (trans) 1,3-Dichloropr...	6.470	75	101688	4.84	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	59584	4.77	ppb		96
41) Tetrachloroethene	6.769	166	153550	4.68	ppb		99
42) 1,3-Dichloropropane	6.787	76	109881	5.00	ppb		100
43) 2-Hexanone	6.866	43	36571	4.99	ppb	#	97
44) Dibromochloromethane	6.988	129	80368	4.94	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

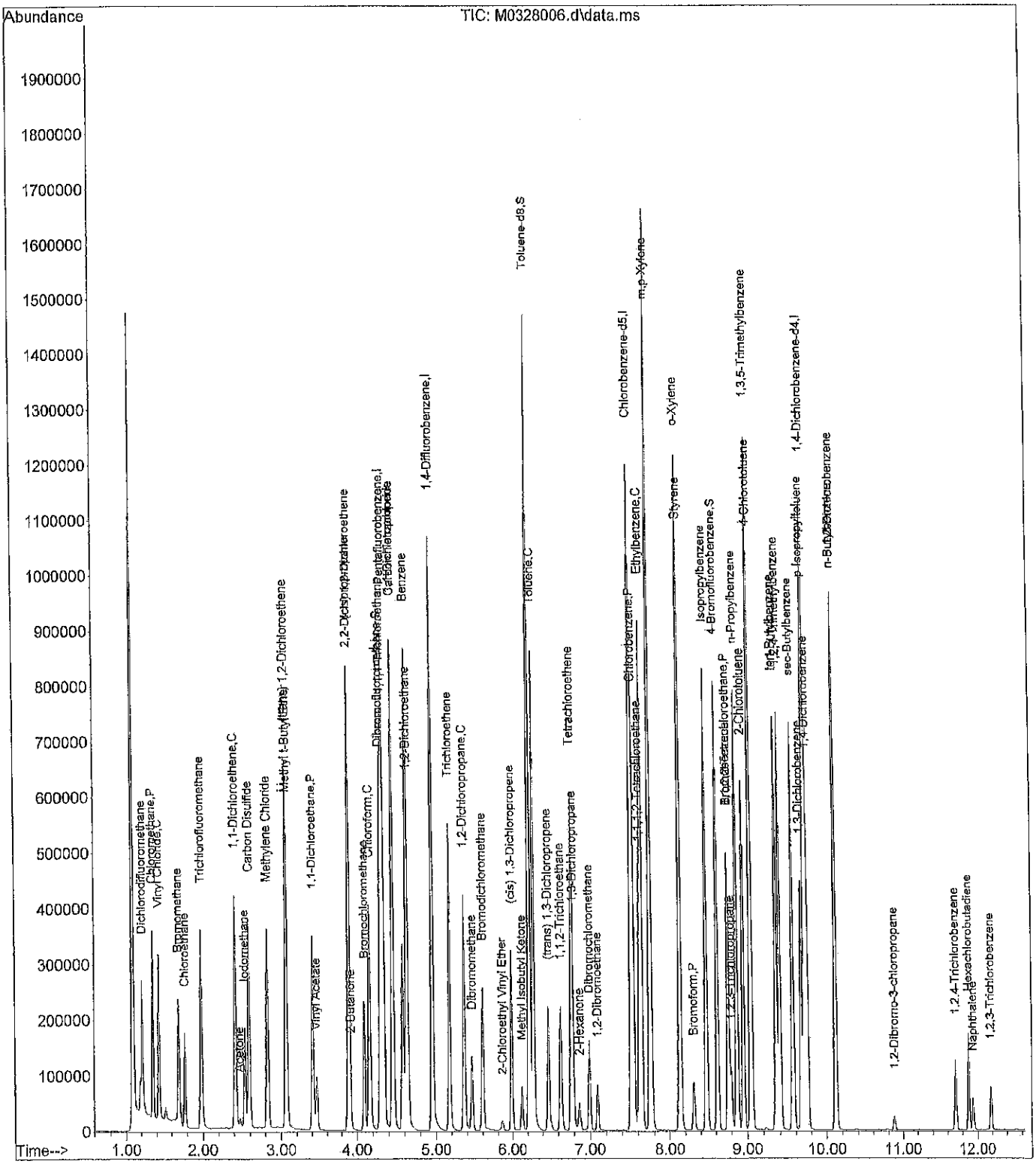
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	1,2-Dibromoethane	7.092	107	55408	5.15	ppb		94
46)	Chlorobenzene	7.543	112	312120	4.72	ppb		99
47)	1,1,1,2-Tetrachloroethane	7.616	133	105314	4.86	ppb		100
48)	Ethylbenzene	7.646	91	615237	4.61	ppb		100
49)	m,p-Xylene	7.756	91	948174	9.45	ppb		100
50)	o-Xylene	8.128	91	431278	4.64	ppb		99
51)	Styrene	8.140	104	328797	4.81	ppb		100
52)	Bromoform	8.311	173	41308	4.89	ppb		97
53)	Isopropylbenzene	8.476	105	537723	4.60	ppb		100
56)	Bromobenzene	8.762	156	106237	5.00	ppb		96
57)	1,1,2,2-Tetrachloroethane	8.762	83	53508	5.15	ppb		95
58)	1,2,3-Trichloropropane	8.799	75	42362	5.32	ppb	#	100
59)	n-Propylbenzene	8.872	91	619715	4.86	ppb		99
60)	2-Chlorotoluene	8.951	126	118651	4.84	ppb		99
61)	4-Chlorotoluene	9.055	126	119653	4.92	ppb		100
62)	1,3,5-Trimethylbenzene	9.043	105	448413	4.74	ppb		99
63)	tert-Butylbenzene	9.353	119	348521	4.70	ppb		99
64)	1,2,4-Trimethylbenzene	9.402	105	423815	4.65	ppb		100
65)	sec-Butylbenzene	9.567	105	506584	4.64	ppb		100
66)	1,3-Dichlorobenzene	9.670	146	186299	4.62	ppb		98
67)	p-Isopropyltoluene	9.713	119	398736	4.45	ppb		98
68)	1,4-Dichlorobenzene	9.756	146	196227	4.62	ppb		100
69)	1,2-Dichlorobenzene	10.115	146	139284	4.54	ppb		98
70)	n-Butylbenzene	10.109	91	366974	4.31	ppb		100
71)	1,2-Dibromo-3-chloropr...	10.884	157	6040	4.30	ppb		92
72)	1,2,4-Trichlorobenzene	11.707	180	40513	2.76	ppb		97
73)	Hexachlorobutadiene	11.883	225	36435	2.56	ppb		98
74)	Naphthalene	11.944	128	46161	3.10	ppb		97
75)	1,2,3-Trichlorobenzene	12.182	180	25509	2.71	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	489227	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	759757	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	599575	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246718	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	222542	10.13	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 101.30%				
36) Toluene-d8	6.220	98	893363	10.00	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.00%				
54) 4-Bromofluorobenzene	8.616	95	271986	9.90	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	358326	9.31	ppb		100
3) Chloromethane	1.343	50	555937	9.51	ppb		99
4) Vinyl Chloride	1.428	62	483276	10.07	ppb		100
5) Bromomethane	1.690	96	219911	9.85	ppb		100
6) Chloroethane	1.770	64	247386	9.79	ppb		100
7) Trichlorofluoromethane	1.977	101	523334	9.97	ppb		100
8) 1,1-Dichloroethene	2.416	61	557386	10.08	ppb		99
9) Acetone	2.471	43	34774	10.16	ppb		99
10) Iodomethane	2.538	142	368612	9.85	ppb		99
11) Carbon Disulfide	2.593	76	884927	10.14	ppb		99
12) Methylene Chloride	2.824	49	460832	9.60	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	560950	10.24	ppb		100
14) Methyl t-Butyl Ether	3.068	73	348111	9.80	ppb		99
15) 1,1-Dichloroethane	3.410	63	642292	10.08	ppb		100
16) Vinyl Acetate	3.458	43	253649	7.34	ppb		99
17) 2,2-Dichloropropane	3.897	77	412258	9.89	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	592869	10.09	ppb		99
19) 2-Butanone	3.922	43	56987	9.78	ppb		98
20) Bromochloromethane	4.098	130	125464	10.11	ppb		99
21) Chloroform	4.165	83	500093	10.03	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	488995	9.94	ppb		98
24) Carbon Tetrachloride	4.458	117	448921	9.82	ppb		98
25) 1,1-Dichloropropene	4.452	75	415631	9.89	ppb		99
26) Benzene	4.629	78	1106258	10.09	ppb		99
27) 1,2-Dichloroethane	4.641	62	310436	10.17	ppb		100
29) Trichloroethene	5.171	130	328989	10.12	ppb		99
30) 1,2-Dichloropropane	5.360	63	301712	9.86	ppb		99
31) Dibromomethane	5.464	174	97928	9.89	ppb		99
32) Bromodichloromethane	5.598	83	300904	9.96	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	14914	20.86	ppb	#	88
34) (cis) 1,3-Dichloropropene	5.982	75	316852	9.91	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	105947	9.57	ppb		99
37) Toluene	6.275	91	1190855	9.61	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	217027	10.28	ppb		98
40) 1,1,2-Trichloroethane	6.635	97	120206	9.58	ppb		97
41) Tetrachloroethene	6.769	166	321992	9.76	ppb		99
42) 1,3-Dichloropropane	6.787	76	222149	10.05	ppb		99
43) 2-Hexanone	6.866	43	70181	9.53	ppb		98
44) Dibromochloromethane	6.988	129	163728	10.00	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

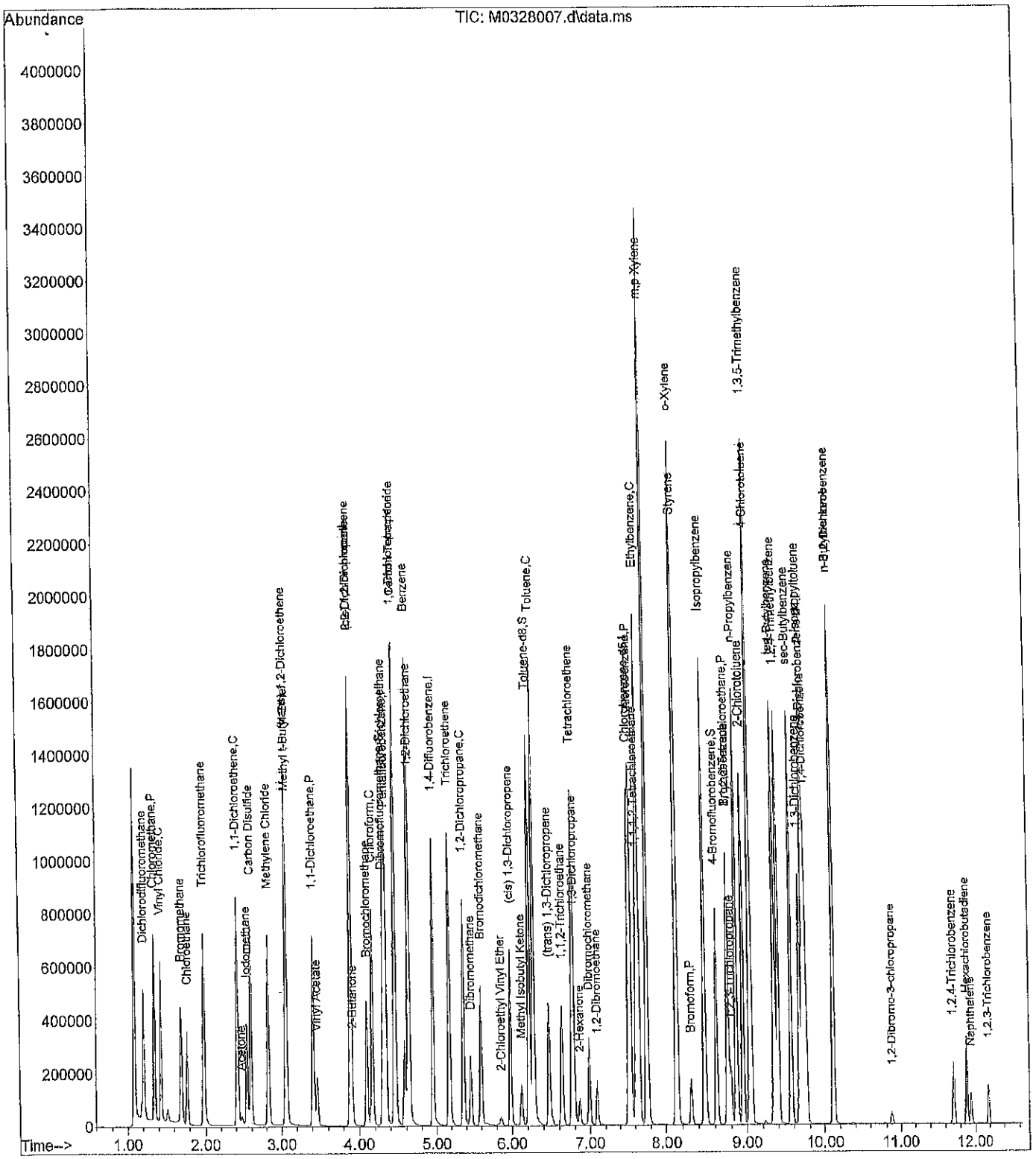
Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	109725	10.14	ppb		97
46) Chlorobenzene	7.543	112	647533	9.74	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	217287	9.97	ppb		98
48) Ethylbenzene	7.646	91	1313400	9.79	ppb		100
49) m,p-Xylene	7.756	91	1993585	19.75	ppb		99
50) o-Xylene	8.128	91	903632	9.66	ppb		98
51) Styrene	8.140	104	688761	10.02	ppb		100
52) Bromoform	8.311	173	83704	9.85	ppb		97
53) Isopropylbenzene	8.476	105	1147125	9.75	ppb		100
56) Bromobenzene	8.762	156	215852	10.33	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	102118	9.98	ppb		99
58) 1,2,3-Trichloropropane	8.799	75	82731	10.56	ppb	#	100
59) n-Propylbenzene	8.872	91	1318888	10.52	ppb		99
60) 2-Chlorotoluene	8.951	126	252805	10.48	ppb		98
61) 4-Chlorotoluene	9.055	126	249463	10.43	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	956130	10.27	ppb		99
63) tert-Butylbenzene	9.353	119	765683	10.50	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	885124	9.88	ppb		99
65) sec-Butylbenzene	9.567	105	1090861	10.15	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	380986	9.60	ppb		99
67) p-Isopropyltoluene	9.713	119	856914	9.72	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	396253	9.49	ppb		99
69) 1,2-Dichlorobenzene	10.116	146	278161	9.21	ppb		99
70) n-Butylbenzene	10.109	91	770172	9.19	ppb		100
71) 1,2-Dibromo-3-chloropr...	10.884	157	12386	8.97	ppb		87
72) 1,2,4-Trichlorobenzene	11.701	180	77070	5.34	ppb		99
73) Hexachlorobutadiene	11.883	225	69390	4.95	ppb		98
74) Naphthalene	11.944	128	90183	5.61	ppb		98
75) 1,2,3-Trichlorobenzene	12.182	180	49016	5.15	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	497601	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	768052	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	607515	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	252975	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	229055	10.25	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.50%				
36) Toluene-d8	6.220	98	909694	10.07	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.70%				
54) 4-Bromofluorobenzene	8.622	95	277129	9.95	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.50%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	1121507	28.64	ppb		99
3) Chloromethane	1.343	50	1561206	26.25	ppb		100
4) Vinyl Chloride	1.428	62	1328160	27.20	ppb		100
5) Bromomethane	1.684	96	581881	25.64	ppb		99
6) Chloroethane	1.770	64	655545	25.52	ppb		99
7) Trichlorofluoromethane	1.977	101	1389716	26.02	ppb		99
8) 1,1-Dichloroethene	2.416	61	1474120	26.22	ppb		99
9) Acetone	2.471	43	87736	26.13	ppb		98
10) Iodomethane	2.538	142	1029759	26.31	ppb		98
11) Carbon Disulfide	2.593	76	2384649	26.86	ppb		99
12) Methylene Chloride	2.824	49	1201171	24.59	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	1480100	26.56	ppb		99
14) Methyl t-Butyl Ether	3.068	73	917317	25.39	ppb		99
15) 1,1-Dichloroethane	3.410	63	1697554	26.18	ppb		99
16) Vinyl Acetate	3.458	43	677905	18.53	ppb		99
17) 2,2-Dichloropropane	3.897	77	1075056	25.36	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	1593641	26.66	ppb		100
19) 2-Butanone	3.922	43	148430	25.04	ppb		98
20) Bromochloromethane	4.098	130	328851	26.05	ppb		99
21) Chloroform	4.165	83	1322341	26.07	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	1293343	25.86	ppb	#	68
24) Carbon Tetrachloride	4.458	117	1213430	26.09	ppb		100
25) 1,1-Dichloropropene	4.452	75	1117703	26.16	ppb		100
26) Benzene	4.629	78	2935857	26.34	ppb		99
27) 1,2-Dichloroethane	4.641	62	810173	26.11	ppb		99
29) Trichloroethene	5.171	130	884095	26.91	ppb		97
30) 1,2-Dichloropropane	5.360	63	807229	26.10	ppb		99
31) Dibromomethane	5.464	174	260025	25.99	ppb		98
32) Bromodichloromethane	5.598	83	801089	26.22	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	43191	56.05	ppb	#	86
34) (cis) 1,3-Dichloropropene	5.982	75	878404	27.19	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	291919	26.08	ppb		98
37) Toluene	6.281	91	3203081	25.57	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	580541	27.13	ppb		98
40) 1,1,2-Trichloroethane	6.634	97	324195	25.49	ppb		96
41) Tetrachloroethene	6.769	166	854911	25.57	ppb		100
42) 1,3-Dichloropropane	6.787	76	586797	26.20	ppb		100
43) 2-Hexanone	6.866	43	200018	26.80	ppb		100
44) Dibromochloromethane	6.988	129	444656	26.79	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

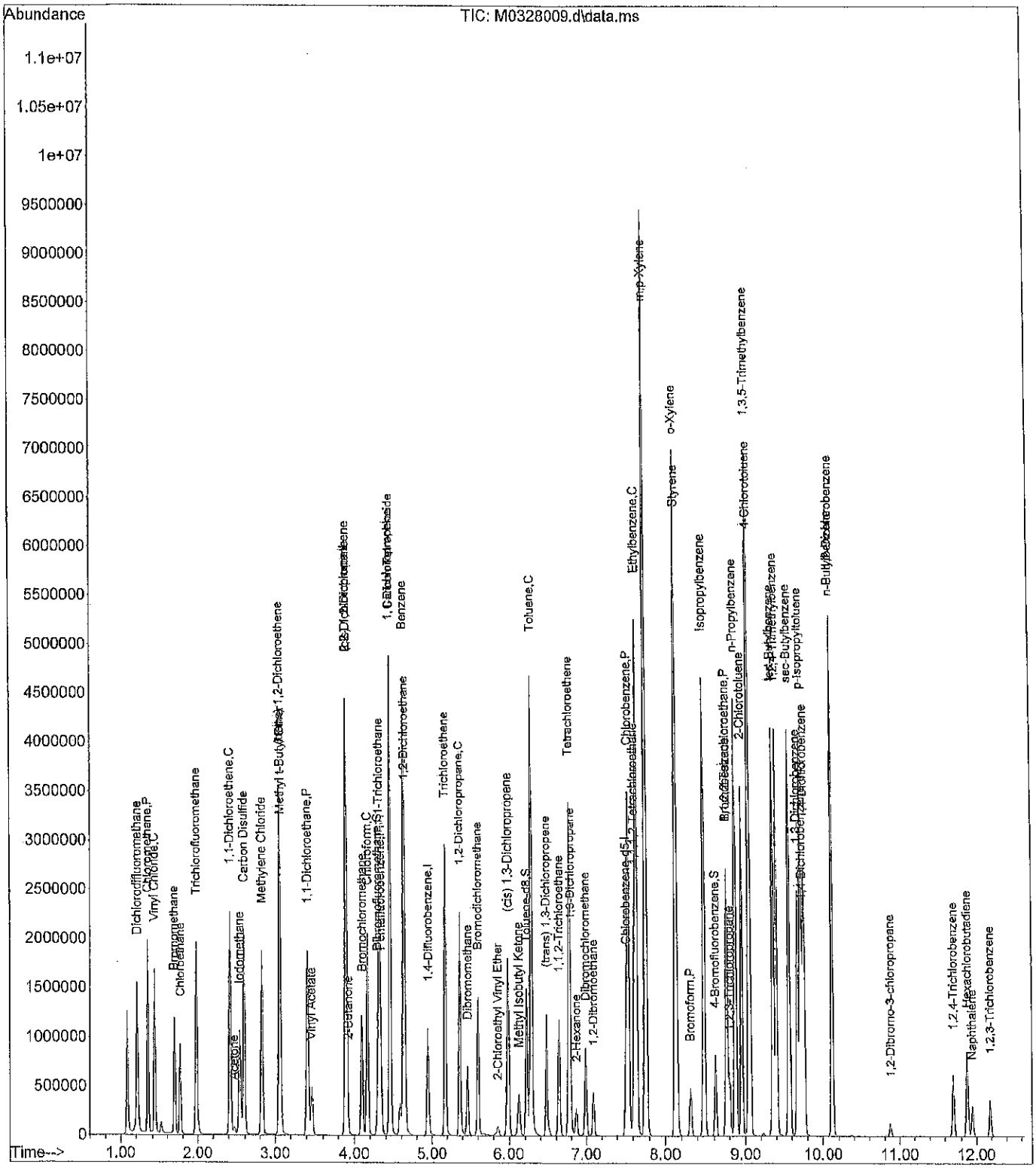
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	292386	26.66	ppb		99
46) Chlorobenzene	7.543	112	1729622	25.68	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	576009	26.08	ppb		99
48) Ethylbenzene	7.646	91	3585151	26.38	ppb		99
49) m,p-Xylene	7.756	91	5434085	53.13	ppb		99
50) o-Xylene	8.128	91	2466541	26.02	ppb		99
51) Styrene	8.140	104	1887824	27.11	ppb		100
52) Bromoform	8.311	173	232242	26.97	ppb		99
53) Isopropylbenzene	8.476	105	3134059	26.30	ppb		100
56) Bromobenzene	8.762	156	592396	27.65	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	278507	26.56	ppb		97
58) 1,2,3-Trichloropropane	8.799	75	221012	27.51	ppb	#	100
59) n-Propylbenzene	8.872	91	3571653	27.78	ppb		100
60) 2-Chlorotoluene	8.951	126	685447	27.70	ppb		98
61) 4-Chlorotoluene	9.055	126	667612	27.22	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	2605407	27.30	ppb		99
63) tert-Butylbenzene	9.353	119	2039103	27.27	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	2384690	25.96	ppb		100
65) sec-Butylbenzene	9.567	105	2940858	26.70	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	1018598	25.04	ppb		99
67) p-Isopropyltoluene	9.713	119	2342593	25.92	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	1061821	24.81	ppb		99
69) 1,2-Dichlorobenzene	10.116	146	755745	24.41	ppb		100
70) n-Butylbenzene	10.109	91	2095716	24.39	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	35703	25.21	ppb		95
72) 1,2,4-Trichlorobenzene	11.707	180	210257	14.22	ppb		98
73) Hexachlorobutadiene	11.883	225	183636	12.77	ppb		99
74) Naphthalene	11.944	128	250957	14.31	ppb		100
75) 1,2,3-Trichlorobenzene	12.182	180	124247	12.52	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	522687	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	794397	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	648063	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	271326	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	239856	10.22	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.20%				
36) Toluene-d8	6.220	98	954439	10.21	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 102.10%				
54) 4-Bromofluorobenzene	8.622	95	292946	9.86	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	2263976	55.05	ppb		99
3) Chloromethane	1.343	50	3189613	51.05	ppb		100
4) Vinyl Chloride	1.428	62	2726670	53.16	ppb		99
5) Bromomethane	1.690	96	1188547	49.85	ppb		99
6) Chloroethane	1.769	64	1341140	49.70	ppb		99
7) Trichlorofluoromethane	1.977	101	2822826	50.31	ppb		100
8) 1,1-Dichloroethene	2.416	61	3002296	50.83	ppb		98
9) Acetone	2.477	43	169002	48.45	ppb		98
10) Iodomethane	2.538	142	2055765	49.63	ppb		97
11) Carbon Disulfide	2.592	76	4931028	52.87	ppb		100
12) Methylene Chloride	2.824	49	2461328	47.97	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	3034587	51.85	ppb		99
14) Methyl t-Butyl Ether	3.068	73	1954424	51.50	ppb		99
15) 1,1-Dichloroethane	3.409	63	3499793	51.39	ppb		99
16) Vinyl Acetate	3.464	43	1988880	50.94	ppb		99
17) 2,2-Dichloropropane	3.897	77	2173704	48.82	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	3306469	52.65	ppb		100
19) 2-Butanone	3.921	43	294527	47.30	ppb		98
20) Bromochloromethane	4.098	130	687090	51.81	ppb		98
21) Chloroform	4.165	83	2720414	51.07	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	2654495	50.52	ppb	#	58
24) Carbon Tetrachloride	4.458	117	2489450	50.96	ppb		100
25) 1,1-Dichloropropene	4.458	75	2319305	51.68	ppb		99
26) Benzene	4.629	78	6103832	52.13	ppb		98
27) 1,2-Dichloroethane	4.641	62	1656157	50.81	ppb		99
29) Trichloroethene	5.171	130	1726990	50.82	ppb		99
30) 1,2-Dichloropropane	5.360	63	1670462	52.23	ppb		99
31) Dibromomethane	5.464	174	532261	51.43	ppb		98
32) Bromodichloromethane	5.598	83	1679673	53.15	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	102169	125.64	ppb	#	89
34) (cis) 1,3-Dichloropropene	5.982	75	1826617	54.67	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	644949	55.71	ppb		98
37) Toluene	6.281	91	6709086	51.79	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	1239067	54.28	ppb		98
40) 1,1,2-Trichloroethane	6.634	97	674955	49.75	ppb		97
41) Tetrachloroethene	6.768	166	1764560	49.48	ppb		99
42) 1,3-Dichloropropane	6.787	76	1220959	51.11	ppb		99
43) 2-Hexanone	6.866	43	420528	52.83	ppb		98
44) Dibromochloromethane	6.988	129	950233	53.68	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

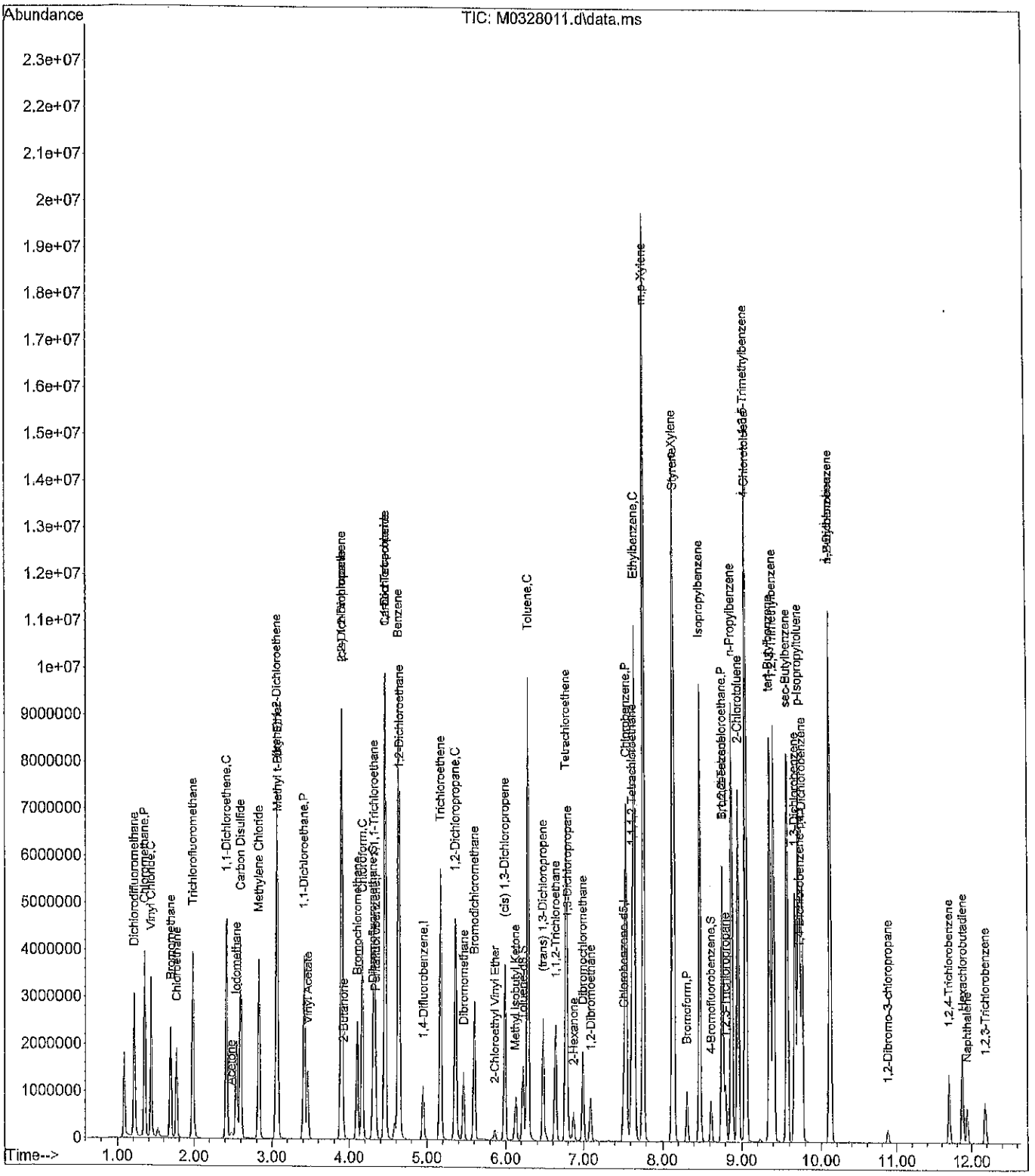
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	599789	51.27	ppb		100
46) Chlorobenzene	7.543	112	3639368	50.66	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.622	133	1226756	52.08	ppb		99
48) Ethylbenzene	7.646	91	7483755	51.62	ppb		99
49) m,p-Xylene	7.756	91	11469508	105.12	ppb		99
50) o-Xylene	8.128	91	5194099	51.37	ppb		99
51) Styrene	8.140	104	4005725	53.92	ppb		100
52) Bromoform	8.311	173	511778	55.72	ppb		97
53) Isopropylbenzene	8.475	105	6542524	51.46	ppb		100
56) Bromobenzene	8.762	156	1232656	53.64	ppb		100
57) 1,1,2,2-Tetrachloroethane	8.762	83	621739	55.28	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	462707	53.70	ppb	#	100
59) n-Propylbenzene	8.872	91	7452772	54.05	ppb		99
60) 2-Chlorotoluene	8.951	126	1400536	52.77	ppb		98
61) 4-Chlorotoluene	9.055	126	1411549	53.66	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	5458502	53.32	ppb		100
63) tert-Butylbenzene	9.353	119	4243887	52.91	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	5034056	51.09	ppb		100
65) sec-Butylbenzene	9.567	105	6127669	51.87	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	2161176	49.54	ppb		99
67) p-Isopropyltoluene	9.713	119	4907139	50.62	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	2245473	48.92	ppb		98
69) 1,2-Dichlorobenzene	10.115	146	1619215	48.77	ppb		100
70) n-Butylbenzene	10.115	91	4472832	48.54	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.883	157	75602	49.77	ppb		94
72) 1,2,4-Trichlorobenzene	11.700	180	482632	30.43	ppb		99
73) Hexachlorobutadiene	11.883	225	393787	25.53	ppb		98
74) Naphthalene	11.944	128	596197	31.03	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	286773	26.78	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	510461	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	773794	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	619866	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	260824	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	233640	10.05	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.50%			
36) Toluene-d8	6.220	98	922244	10.11	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 101.10%			
54) 4-Bromofluorobenzene	8.622	95	278743	10.13	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 101.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	329413	8.41	ppb	100
3) Chloromethane	1.343	50	597280	9.87	ppb	100
4) Vinyl Chloride	1.428	62	501584	9.84	ppb	100
5) Bromomethane	1.690	96	230195	9.50	ppb	98
6) Chloroethane	1.769	64	257346	9.62	ppb	99
7) Trichlorofluoromethane	1.977	101	559983	10.20	ppb	99
8) 1,1-Dichloroethene	2.416	61	639672	10.90	ppb	100
9) Acetone	2.483	43	36530	10.23	ppb	99
10) Iodomethane	2.538	142	373007	9.48	ppb	99
11) Carbon Disulfide	2.592	76	935588	10.03	ppb	100
12) Methylene Chloride	2.824	49	504778	10.00	ppb	99
13) (trans) 1,2-Dichloroet...	3.056	61	595161	10.07	ppb	99
14) Methyl t-Butyl Ether	3.068	73	395430	10.62	ppb	100
15) 1,1-Dichloroethane	3.409	63	704461	10.46	ppb	99
16) Vinyl Acetate	3.464	43	172935	6.08	ppb	100
17) 2,2-Dichloropropane	3.897	77	408962	9.51	ppb	100
18) (cis) 1,2-Dichloroethene	3.897	61	638476	10.27	ppb	100
19) 2-Butanone	3.921	43	58497	9.47	ppb	98
20) Bromochloromethane	4.098	130	139022	10.67	ppb	98
21) Chloroform	4.165	83	549665	10.33	ppb	99
22) 1,1,1-Trichloroethane	4.318	97	536813	10.46	ppb	95
24) Carbon Tetrachloride	4.458	117	499537	10.42	ppb	97
25) 1,1-Dichloropropene	4.452	75	448750	10.09	ppb	99
26) Benzene	4.629	78	1210361	10.35	ppb	100
27) 1,2-Dichloroethane	4.641	62	336423	10.39	ppb	99
29) Trichloroethene	5.171	130	378291	11.08	ppb	99
30) 1,2-Dichloropropane	5.360	63	326363	10.48	ppb	99
31) Dibromomethane	5.464	174	111837	11.18	ppb	99
32) Bromodichloromethane	5.598	83	338886	10.94	ppb	98
33) 2-Chloroethyl Vinyl Ether	5.860	63	15917	9.55	ppb	99
34) (cis) 1,3-Dichloropropene	5.982	75	343393	10.79	ppb	99
35) Methyl Isobutyl Ketone	6.122	43	110853	9.73	ppb	98
37) Toluene	6.281	91	1303383	10.35	ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	231090	10.59	ppb	100
40) 1,1,2-Trichloroethane	6.634	97	131800	10.05	ppb	99
41) Tetrachloroethene	6.769	166	351520	10.39	ppb	99
42) 1,3-Dichloropropane	6.787	76	240647	10.55	ppb	99
43) 2-Hexanone	6.866	43	73055	9.33	ppb	100
44) Dibromochloromethane	6.988	129	187880	11.08	ppb	98

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

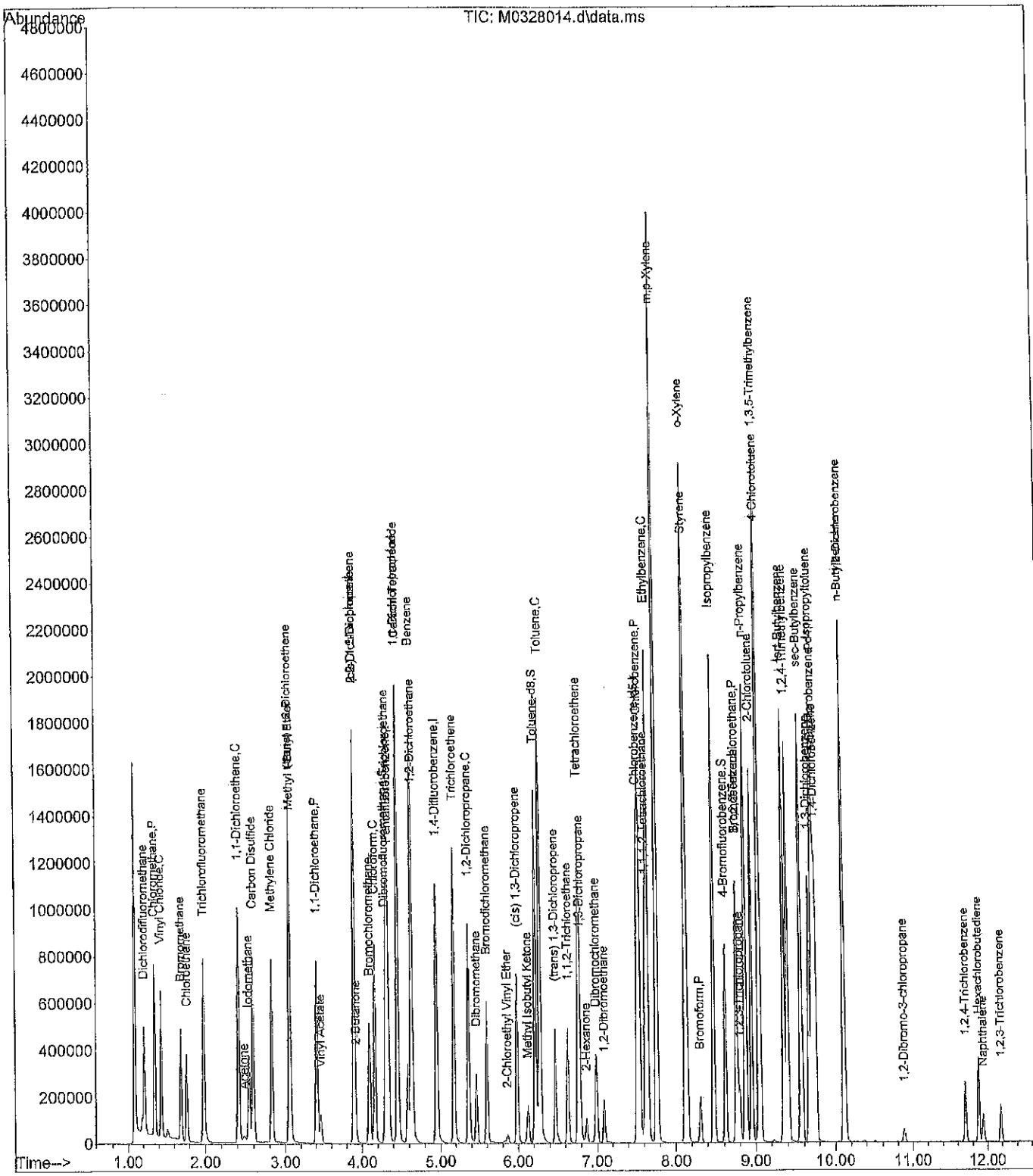
Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	121746	10.62	ppb		99
46) Chlorobenzene	7.543	112	777358	11.26	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	235590	10.59	ppb		99
48) Ethylbenzene	7.646	91	1429843	10.55	ppb		100
49) m,p-Xylene	7.756	91	2249857	22.19	ppb		99
50) o-Xylene	8.128	91	1087120	11.73	ppb		100
51) Styrene	8.140	104	755347	10.94	ppb		100
52) Bromoform	8.311	173	92427	10.74	ppb		98
53) Isopropylbenzene	8.475	105	1357068	11.74	ppb		99
56) Bromobenzene	8.762	156	244612	10.36	ppb		97
57) 1,1,2,2-Tetrachloroethane	8.762	83	109511	9.58	ppb		96
58) 1,2,3-Trichloropropane	8.799	75	94450	10.47	ppb	#	100
59) n-Propylbenzene	8.872	91	1568963	11.28	ppb		99
60) 2-Chlorotoluene	8.951	126	303671	11.33	ppb		100
61) 4-Chlorotoluene	9.055	126	300275	11.41	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	1039946	10.55	ppb		99
63) tert-Butylbenzene	9.353	119	902330	11.62	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	957567	10.48	ppb		99
65) sec-Butylbenzene	9.567	105	1290528	11.52	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	459444	11.27	ppb		99
67) p-Isopropyltoluene	9.713	119	1006766	11.42	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	433737	10.18	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	343625	11.62	ppb		98
70) n-Butylbenzene	10.109	91	840590	10.44	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	14660	11.24	ppb		97
72) 1,2,4-Trichlorobenzene	11.707	180	86555	10.60	ppb		98
73) Hexachlorobutadiene	11.883	225	75185	9.84	ppb		98
74) Naphthalene	11.944	128	98546	10.16	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	52321	9.87	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	10.000	10.000	0.0	120	0.00
2		Dichlorodifluoromethane	10.000	6.849	31.5#	86	0.00
3	P	Chloromethane	10.000	8.668	13.3	108	0.00
4	C	Vinyl Chloride	10.000	8.519	14.8#	103	0.00
5		Bromomethane	10.000	8.372	16.3	106	0.00
6		Chloroethane	10.000	8.238	17.6	102	0.00
7		Trichlorofluoromethane	10.000	8.549	14.5	103	0.00
8	C	1,1-Dichloroethene	10.000	9.246	7.5#	112	0.00
9		Acetone	10.000	8.227	17.7	98	0.00
10		Iodomethane	10.000	8.324	16.8	101	0.00
11		Carbon Disulfide	10.000	9.243	7.6	112	0.00
12		Methylene Chloride	10.000	9.032	9.7	114	0.00
13		(trans) 1,2-Dichloroethene	10.000	9.275	7.2	112	0.00
14		Methyl t-Butyl Ether	10.000	8.181	18.2	100	0.00
15	P	1,1-Dichloroethane	10.000	9.186	8.1	111	0.00
16		Vinyl Acetate	10.000	10.299	-3.0	133	0.00
17		2,2-Dichloropropane	10.000	9.093	9.1	109	0.00
18		(cis) 1,2-Dichloroethene	10.000	8.962	10.4	108	0.00
19		2-Butanone	10.000	8.249	17.5	103	0.00
20		Bromochloromethane	10.000	9.341	6.6	111	0.00
21	C	Chloroform	10.000	8.673	13.3#	106	0.00
22		1,1,1-Trichloroethane	10.000	8.737	12.6	105	0.00
23	S	Dibromofluoromethane	10.000	7.705	22.9#	92	0.00
24		Carbon Tetrachloride	10.000	8.988	10.1	110	0.00
25		1,1-Dichloropropene	10.000	8.987	10.1	110	0.00
26		Benzene	10.000	9.158	8.4	111	0.00
27		1,2-Dichloroethane	10.000	8.086	19.1	97	0.00
28	I	1,4-Difluorobenzene	10.000	10.000	0.0	111	0.00
29		Trichloroethene	10.000	10.117	-1.2	115	0.00
30	C	1,2-Dichloropropane	10.000	9.820	1.8#	111	0.00
31		Dibromomethane	10.000	10.293	-2.9	115	0.00
32		Bromodichloromethane	10.000	9.439	5.6	106	0.00
33		2-Chloroethyl Vinyl Ether	10.000	2.605	73.9#	32	0.00
34		(cis) 1,3-Dichloropropene	10.000	9.734	2.7	107	0.00
35		Methyl Isobutyl Ketone	10.000	8.488	15.1	100	0.00
36	S	Toluene-d8	10.000	9.613	3.9	107	0.00
37	C	Toluene	10.000	9.764	2.4#	113	0.00
38	I	Chlorobenzene-d5	10.000	10.000	0.0	106	0.00
39		(trans) 1,3-Dichloropropene	10.000	10.087	-0.9	104	0.00
40		1,1,2-Trichloroethane	10.000	9.618	3.8	108	0.00
41		Tetrachloroethene	10.000	11.159	-11.6	121	0.00
42		1,3-Dichloropropane	10.000	9.878	1.2	104	0.00
43		2-Hexanone	10.000	8.662	13.4	99	0.00
44		Dibromochloromethane	10.000	10.182	-1.8	108	0.00
45		1,2-Dibromoethane	10.000	9.997	0.0	107	0.00
46	P	Chlorobenzene	10.000	10.517	-5.2	115	0.00
47		1,1,1,2-Tetrachloroethane	10.000	10.719	-7.2	113	0.00
48	C	Ethylbenzene	10.000	10.595	-6.0#	112	0.00

Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49		m,p-Xylene	20.000	21.453	-7.3	112	0.00
50		o-Xylene	10.000	10.554	-5.5	111	0.00
51		Styrene	10.000	10.906	-9.1	112	0.00
52	P	Bromoform	10.000	10.642	-6.4	113	0.00
53		Isopropylbenzene	10.000	11.063	-10.6	115	0.00
54	S	4-Bromofluorobenzene	10.000	9.373	6.3	98	0.00
55	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	106	0.00
56		Bromobenzene	10.000	10.637	-6.4	116	0.00
57	P	1,1,2,2-Tetrachloroethane	10.000	9.351	6.5	105	0.00
58		1,2,3-Trichloropropane	10.000	9.110	8.9	99	0.00
59		n-Propylbenzene	10.000	10.787	-7.9	114	0.00
60		2-Chlorotoluene	10.000	11.018	-10.2	117	0.00
61		4-Chlorotoluene	10.000	11.023	-10.2	116	0.00
62		1,3,5-Trimethylbenzene	10.000	11.202	-12.0	115	0.00
63		tert-Butylbenzene	10.000	11.476	-14.8	116	0.00
64		1,2,4-Trimethylbenzene	10.000	11.221	-12.2	116	0.00
65		sec-Butylbenzene	10.000	11.460	-14.6	117	0.00
66		1,3-Dichlorobenzene	10.000	10.934	-9.3	117	0.00
67		p-Isopropyltoluene	10.000	11.592	-15.9	119	0.00
68		1,4-Dichlorobenzene	10.000	10.759	-7.6	116	0.00
69		1,2-Dichlorobenzene	10.000	10.945	-9.5	116	0.00
70		n-Butylbenzene	10.000	11.489	-14.9	120	0.00
71		1,2-Dibromo-3-chloropropane	10.000	11.587	-15.9	122	0.00
72		1,2,4-Trichlorobenzene	10.000	11.595	-16.0	123	0.00
73		Hexachlorobutadiene	10.000	13.092	-30.9#	144	0.00
74		Naphthalene	10.000	10.126	-1.3	109	0.00
75		1,2,3-Trichlorobenzene	10.000	10.002	-0.0	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	586461	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	844392	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	637433	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	260379	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	205778	7.71	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 77.10%			
36) Toluene-d8	6.220	98	956546	9.61	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.10%			
54) 4-Bromofluorobenzene	8.616	95	265221	9.37	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	308233	6.85	ppb	100
3) Chloromethane	1.343	50	602772	8.67	ppb	99
4) Vinyl Chloride	1.428	62	499070	8.52	ppb	99
5) Bromomethane	1.690	96	233049	8.37	ppb	99
6) Chloroethane	1.769	64	253087	8.24	ppb	100
7) Trichlorofluoromethane	1.977	101	539345	8.55	ppb	100
8) 1,1-Dichloroethene	2.416	61	623367	9.25	ppb	100
9) Acetone	2.477	43	34220	8.23	ppb	96
10) Iodomethane	2.538	142	374042	8.32	ppb	94
11) Carbon Disulfide	2.592	76	990845	9.24	ppb	100
12) Methylene Chloride	2.824	49	523929	9.03	ppb	100
13) (trans) 1,2-Dichloroet...	3.056	61	629597	9.27	ppb	99
14) Methyl t-Butyl Ether	3.068	73	349787	8.18	ppb	98
15) 1,1-Dichloroethane	3.409	63	710747	9.19	ppb	99
16) Vinyl Acetate	3.464	43	336829	10.30	ppb	99
17) 2,2-Dichloropropane	3.897	77	449198	9.09	ppb	100
18) (cis) 1,2-Dichloroethene	3.897	61	640306	8.96	ppb	100
19) 2-Butanone	3.921	43	58559	8.25	ppb	97
20) Bromochloromethane	4.098	130	139839	9.34	ppb	97
21) Chloroform	4.165	83	530285	8.67	ppb	100
22) 1,1,1-Trichloroethane	4.318	97	515080	8.74	ppb	98
24) Carbon Tetrachloride	4.458	117	495034	8.99	ppb	96
25) 1,1-Dichloropropene	4.452	75	459233	8.99	ppb	100
26) Benzene	4.629	78	1230387	9.16	ppb	99
27) 1,2-Dichloroethane	4.641	62	300860	8.09	ppb	100
29) Trichloroethene	5.171	130	376789	10.12	ppb	99
30) 1,2-Dichloropropane	5.360	63	333753	9.82	ppb	99
31) Dibromomethane	5.464	174	112342	10.29	ppb	100
32) Bromodichloromethane	5.598	83	319028	9.44	ppb	99
33) 2-Chloroethyl Vinyl Ether	5.860	63	4736	2.61	ppb	97
34) (cis) 1,3-Dichloropropene	5.982	75	338111	9.73	ppb	100
35) Methyl Isobutyl Ketone	6.122	43	105513	8.49	ppb	98
37) Toluene	6.281	91	1341880	9.76	ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	226360	10.09	ppb	99
40) 1,1,2-Trichloroethane	6.634	97	129774	9.62	ppb	99
41) Tetrachloroethene	6.768	166	388073	11.16	ppb	99
42) 1,3-Dichloropropane	6.787	76	231621	9.88	ppb	100
43) 2-Hexanone	6.866	43	69728	8.66	ppb	99
44) Dibromochloromethane	6.988	129	177471	10.18	ppb	99

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

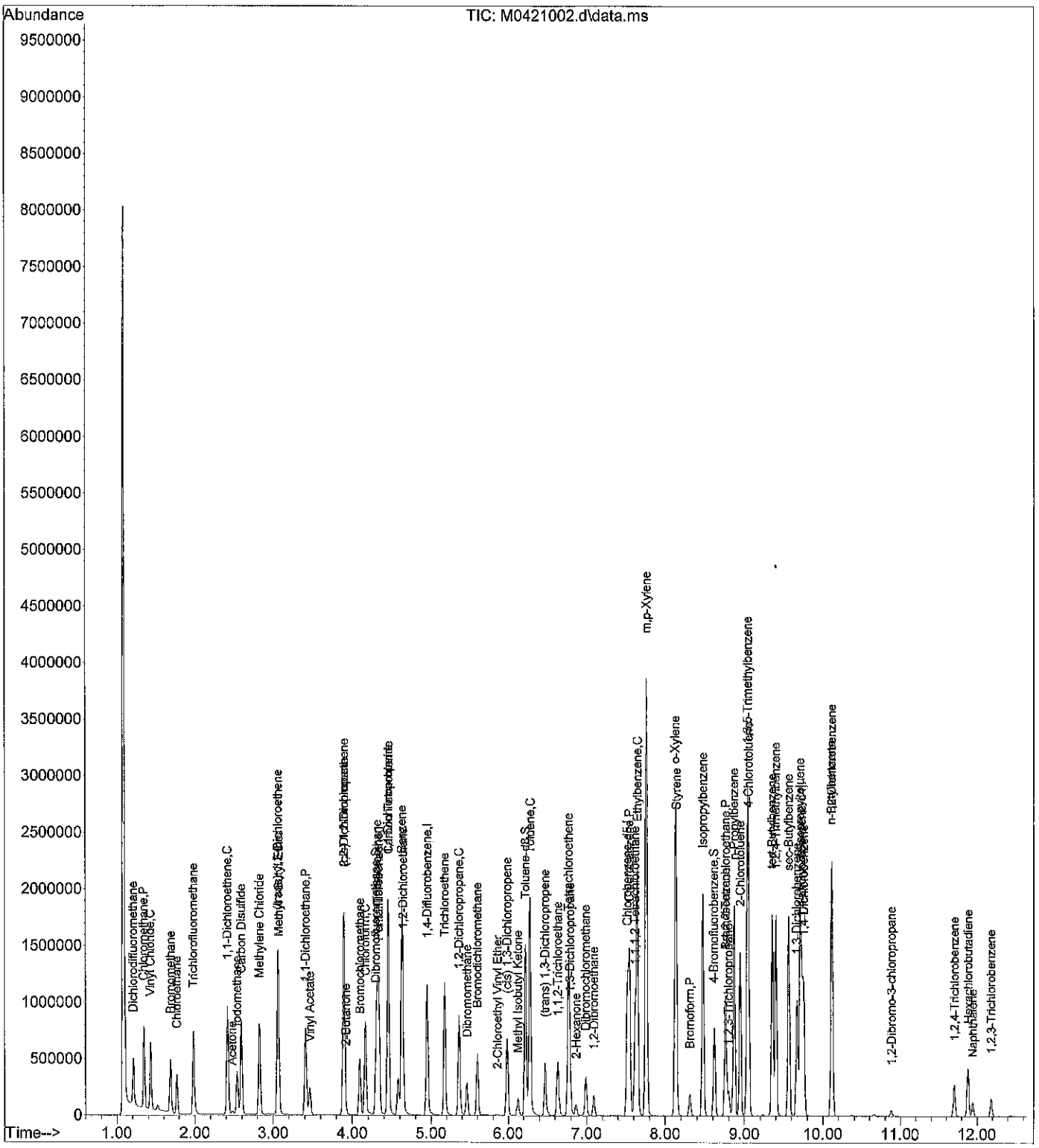
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	117902	10.00	ppb		98
46) Chlorobenzene	7.543	112	746417	10.52	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	245139	10.72	ppb		100
48) Ethylbenzene	7.646	91	1476598	10.59	ppb		99
49) m,p-Xylene	7.756	91	2237037	21.45	ppb		98
50) o-Xylene	8.128	91	1005535	10.55	ppb		99
51) Styrene	8.140	104	774608	10.91	ppb		100
52) Bromoform	8.311	173	94182	10.64	ppb		99
53) Isopropylbenzene	8.475	105	1315484	11.06	ppb		99
56) Bromobenzene	8.762	156	250598	10.64	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	106715	9.35	ppb		99
58) 1,2,3-Trichloropropane	8.799	75	82051	9.11	ppb	#	100
59) n-Propylbenzene	8.872	91	1498373	10.79	ppb		98
60) 2-Chlorotoluene	8.951	126	294900	11.02	ppb		99
61) 4-Chlorotoluene	9.055	126	289578	11.02	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	1101845	11.20	ppb		97
63) tert-Butylbenzene	9.353	119	889428	11.48	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	1023087	11.22	ppb		97
65) sec-Butylbenzene	9.567	105	1281111	11.46	ppb		98
66) 1,3-Dichlorobenzene	9.670	146	444978	10.93	ppb		99
67) p-Isopropyltoluene	9.713	119	1020550	11.59	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	457794	10.76	ppb		99
69) 1,2-Dichlorobenzene	10.115	146	323116	10.94	ppb		98
70) n-Butylbenzene	10.109	91	923261	11.49	ppb		98
71) 1,2-Dibromo-3-chloropr...	10.884	157	15090	11.59	ppb		93
72) 1,2,4-Trichlorobenzene	11.707	180	94502	11.59	ppb		99
73) Hexachlorobutadiene	11.883	225	99875	13.09	ppb		98
74) Naphthalene	11.944	128	98089	10.13	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	52955	10.00	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421002.d
Acq On : 21 Apr 2014 8:07 am
Operator :
Sample : CCV0421W1
Misc : V3-125-4
ALS Vial : 2 Sample Multiplier: 1

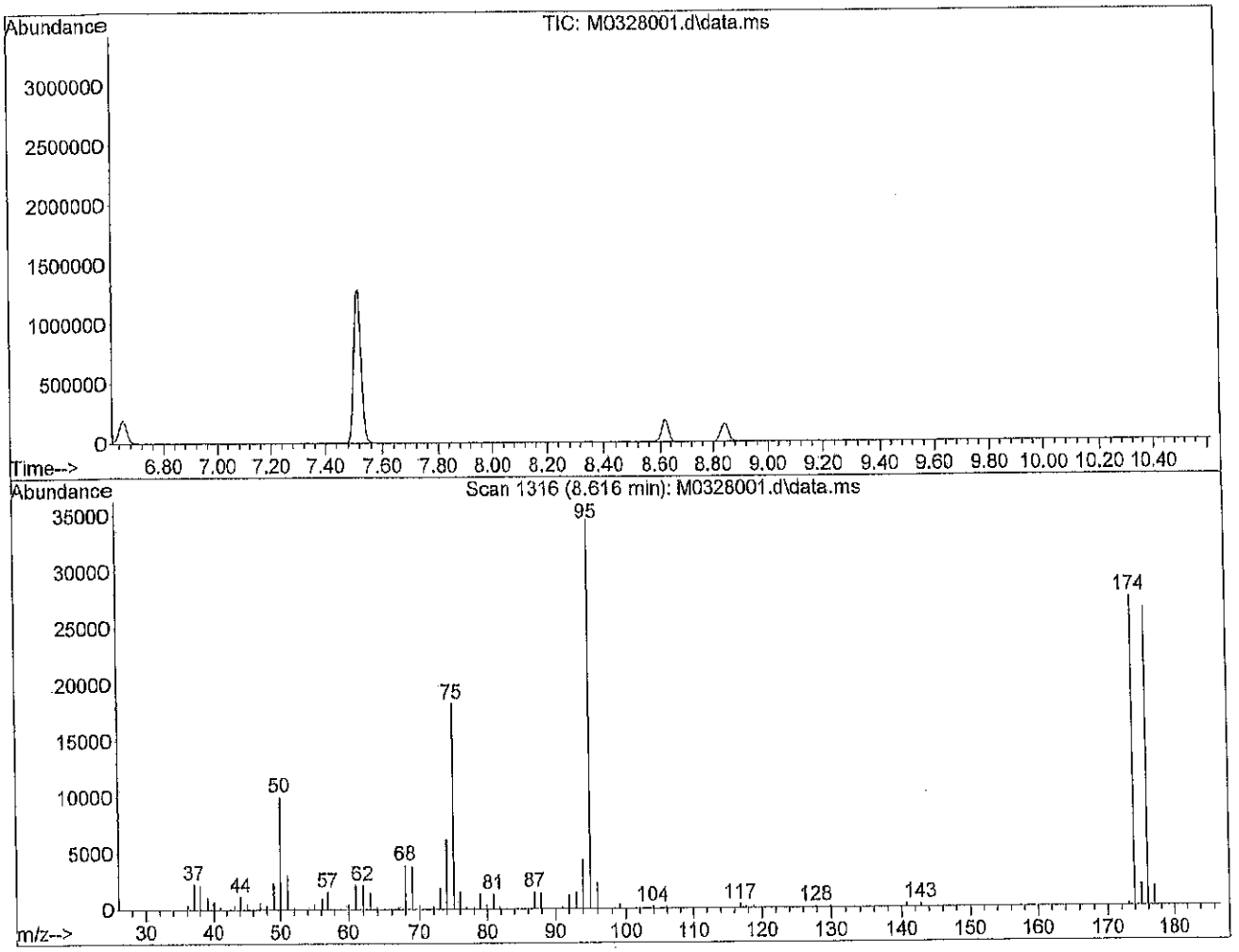
Quant Time: Apr 21 08:20:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\M140328\Snapshot\
Data File : M0328001.d
Acq On : 28 Mar 2014 6:54 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140324W.M
Title :
Last Update : Mon Mar 24 11:06:36 2014



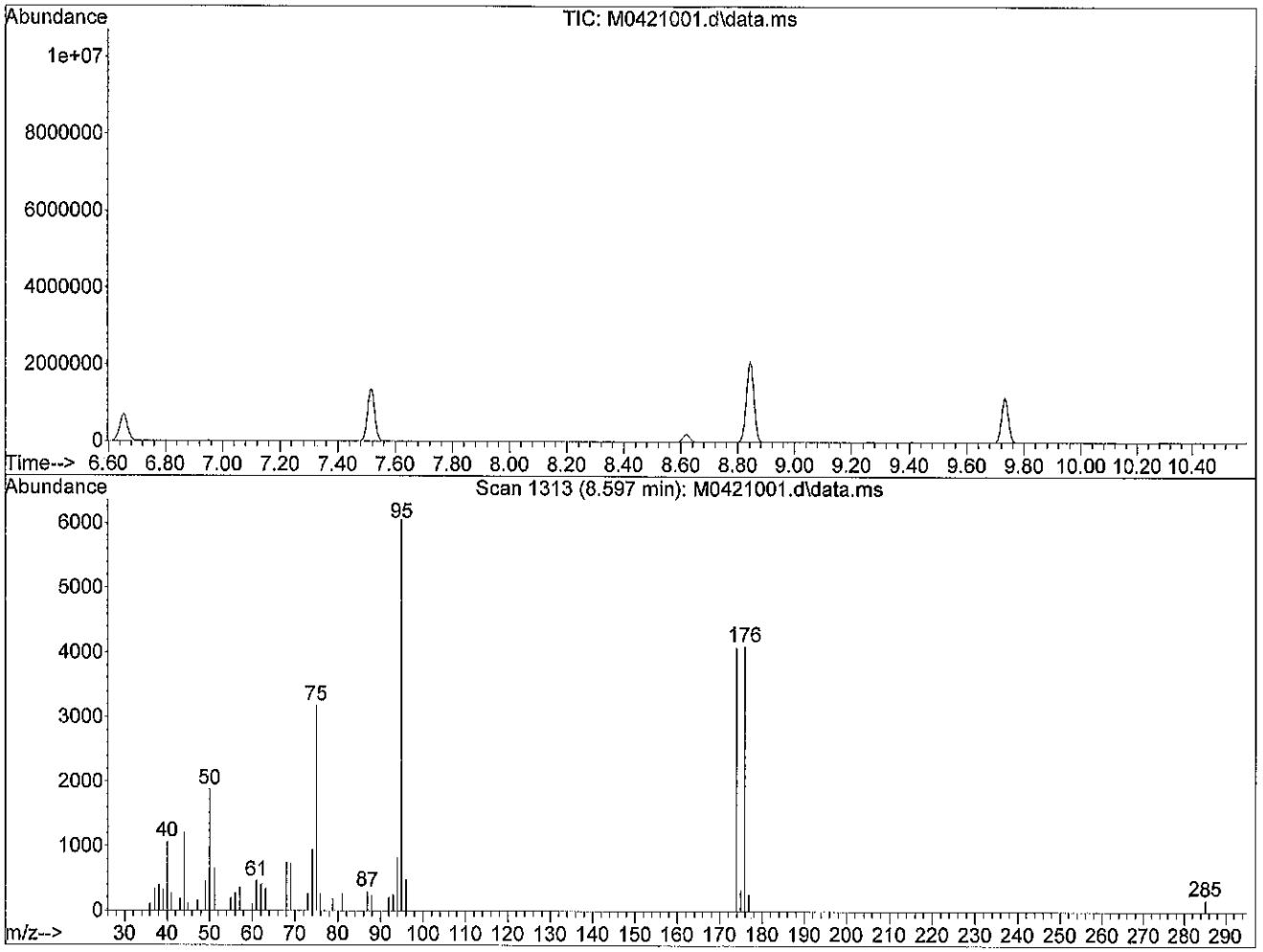
Spectrum Information: Scan 1316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	29.0	10030	PASS
75	95	30	80	52.9	18280	PASS
95	95	100	100	100.0	34536	PASS
96	95	5	9	6.6	2289	PASS
173	174	0.00	2	0.7	191	PASS
174	95	50	100	79.5	27456	PASS
175	174	5	9	7.0	1915	PASS
176	174	95	101	96.5	26504	PASS
177	176	5	9	6.6	1751	PASS

Data Path : X:\VOLATILE\MORRIS\DATA\M140421\
Data File : M0421001.d
Acq On : 21 Apr 2014 7:37 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014



Spectrum Information: Scan 1313

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.1	1885	PASS
75	95	30	80	52.6	3186	PASS
95	95	100	100	100.0	6061	PASS
96	95	5	9	8.0	482	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	67.4	4083	PASS
175	174	5	9	8.0	328	PASS
176	174	95	101	100.6	4107	PASS
177	176	5	9	6.4	264	PASS

GC/MS QA-QC Check Report

Tune File : X:\VOLATILE\MORRIS\DATA\M140421\M0421001.d
Tune Time : 21 Apr 2014 7:37 am

Daily Calibration File : X:\VOLATILE\MORRIS\DATA\M140421\M0421002.d

586461 844392 637433

260379

File	Sample	Surrogate Recovery %			Internal Standard Responses		
M0421003.d							
	SB0421W1	80	95	91	583615	851796	638455
				246954			
M0421004.d							
	04-137-01c	82	95	92	577702	854037	650908
				257039			
M0421005.d							
	04-137-01d	82	95	93	582849	844413	648272
				251232			
M0421006.d							
	MB0421W1	83	96	92	575038	840158	651278
				255461			
M0421007.d							
	04-137-01b	84	96	93	572939	840580	643845
				248008			
M0421022.d							
	04-156-01b	85	98	94	571262	832022	652827
				259387			
M0421023.d							
	04-156-02b	85	94	93	555685	826043	634395
				250768			
M0421024.d							
	04-156-03b	85	96	93	561078	823991	641515
				252441			
M0421025.d							
	04-156-04b	83	96	94	555573	819732	629750
				244148			
M0421026.d							
	04-156-05b	85	97	94	560269	824480	637463
				248664			

(fails) - fails 12hr time check * - fails criteria

Created: Tue Apr 22 07:15:27 2014 Morris

Sequence Name: C:\msdchem\1\sequence\M140328.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140328\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0328001 M140324W 50ng bfb mass tune
2)	Sample 2	M0328002 M140324W blank
3)	Sample 3	M0328003 M140324W 0.20 PPB ICAL
4)	Sample 4	M0328004 M140324W 1.0 PPB ICAL
5)	Sample 5	M0328005 M140324W 2.0 PPB ICAL
6)	Sample 6	M0328006 M140324W 5.0 PPB ICAL
7)	Sample 7	M0328007 M140324W 10 PPB ICAL
8)	Sample 8	M0328008 M140324W BLANK
9)	Sample 9	M0328009 M140324W 25 PPB ICAL
10)	Sample 10	M0328010 M140324W BLANK
11)	Sample 11	M0328011 M140324W 50 PPB ICAL
12)	Sample 12	M0328012 M140324W BLANK
13)	Sample 13	M0328013 M140324W BLANK
14)	Sample 14	M0328014 M140324W ICV0328W1
15)	Sample 15	M0328015 M140324W BLANK
16)	Sample 16	M0328016 M140324W BLANK
17)	Sample 17	M0328017 M140324W BLANK
18)	Sample 18	M0328018 M140324W 03-202-01a 1:100 SCREEN
19)	Sample 19	M0328019 M140324W 03-202-02a 1:100 SCREEN
20)	Sample 20	M0328020 M140324W 03-202-03a 1:100 SCREEN
21)	Sample 21	M0328021 M140324W 03-202-04a 1:100 SCREEN
22)	Sample 22	M0328022 M140324W 03-206-04c 1:100 SCREEN
23)	Sample 23	M0328023 M140324W 03-206-08c 1:100 SCREEN
24)	Sample 24	M0328024 M140324W 03-206-12c 1:100 SCREEN
25)	Sample 25	M0328025 M140324W 03-206-16c 1:100 SCREEN
26)	Sample 26	M0328026 M140324W 03-207-01a 1:100 SCREEN
27)	Sample 27	M0328027 M140324W 03-207-02a 1:100 SCREEN
28)	Sample 28	M0328028 M140324W 03-207-03a 1:100 SCREEN
29)	Sample 29	M0328029 M140324W 03-207-04a 1:100 SCREEN
30)	Sample 30	M0328030 M140324W 03-207-05a 1:100 SCREEN
31)	Sample 31	M0328031 M140324W 03-207-06a 1:100 SCREEN
32)	Sample 32	M0328032 M140324W 03-207-07a 1:100 SCREEN
33)	Sample 33	M0328033 M140324W 03-207-08a 1:100 SCREEN
34)	Sample 34	M0328034 M140324W 03-207-09a 1:100 SCREEN

Sequence Name: C:\msdchem\1\sequence\M140421.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140421\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0421001 M140328W 50ng bfb mass tune
2)	Sample 2	M0421002 M140328W CCV0421W1
3)	Sample 3	M0421003 M140328W SB0421W1
4)	Sample 4	M0421004 M140328W 04-137-01c MS
5)	Sample 5	M0421005 M140328W 04-137-01d MSD
6)	Sample 6	M0421006 M140328W MB0421W1
7)	Sample 7	M0421007 M140328W 04-137-01b
8)	Sample 8	M0421008 M140328W 04-137-04b
9)	Sample 9	M0421009 M140328W 04-137-05b
10)	Sample 10	M0421010 M140328W 04-137-02b
11)	Sample 11	M0421011 M140328W 04-137-03b
12)	Sample 12	M0421012 M140328W 04-123-01b
13)	Sample 13	M0421013 M140328W 04-123-02b
14)	Sample 14	M0421014 M140328W 04-123-03b
15)	Sample 15	M0421015 M140328W 04-123-04b
16)	Sample 16	M0421016 M140328W 04-123-05b
17)	Sample 17	M0421017 M140328W 04-138-01b
18)	Sample 18	M0421018 M140328W 04-138-02b
19)	Sample 19	M0421019 M140328W 04-138-03b
20)	Sample 20	M0421020 M140328W 04-138-04b
21)	Sample 21	M0421021 M140328W 04-138-05b
22)	Sample 22	M0421022 M140328W 04-156-01b
23)	Sample 23	M0421023 M140328W 04-156-02b
24)	Sample 24	M0421024 M140328W 04-156-03b
25)	Sample 25	M0421025 M140328W 04-156-04b
26)	Sample 26	M0421026 M140328W 04-156-05b
27)	Sample 27	M0421027 M140328W 04-151-01a 1:100 SCREEN
28)	Sample 28	M0421028 M140328W 04-151-02a 1:100 SCREEN
29)	Sample 29	M0421029 M140328W 04-151-03a 1:100 SCREEN
30)	Sample 30	M0421030 M140328W 04-151-04a 1:100 SCREEN
31)	Sample 31	M0421031 M140328W 04-151-05a 1:100 SCREEN
32)	Sample 32	M0421032 M140328W 04-151-06a 1:100 SCREEN
33)	Sample 33	M0421033 M140328W 04-151-07a 1:100 SCREEN
34)	Sample 34	M0421034 M140328W 04-151-08a 1:100 SCREEN
35)	Sample 35	M0421035 M140328W 04-151-09a 1:100 SCREEN
36)	Sample 36	M0421036 M140328W 04-151-10a 1:100 SCREEN
37)	Sample 37	M0421037 M140328W 04-151-11a 1:100 SCREEN
38)	Sample 38	M0421038 M140328W 04-151-12a 1:100 SCREEN
39)	Sample 39	M0421039 M140328W 04-151-13a 1:100 SCREEN
40)	Sample 40	M0421040 M140328W 04-151-14a 1:100 SCREEN
41)	Sample 41	M0421041 M140328W 04-151-15a 1:100 SCREEN
42)	Sample 42	M0421042 M140328W 04-151-16a 1:100 SCREEN
43)	Sample 43	M0421043 M140328W 04-151-17a 1:100 SCREEN

Sequence Name: C:\msdchem\1\sequence\M140421.s

	Line	Type	Vial	DataFile	Method	Sample Name		
44)		Sample	44	M0421044	M140328W	04-151-18a	1:100	SCREEN
45)		Sample	45	M0421045	M140328W	04-151-19a	1:100	SCREEN
46)		Sample	46	M0421046	M140328W	04-151-20a	1:100	SCREEN
47)		Sample	47	M0421047	M140328W	04-151-21a	1:100	SCREEN
48)		Sample	48	M0421048	M140328W	04-151-22a	1:100	SCREEN
49)		Sample	49	M0421049	M140328W	04-151-23a	1:100	SCREEN
50)		Sample	50	M0421050	M140328W	04-151-24a	1:100	SCREEN
51)		Sample	51	M0421051	M140328W	04-151-25a	1:100	SCREEN
52)		Sample	52	M0421052	M140328W	04-151-26a	1:100	SCREEN
53)		Sample	53	M0421053	M140328W	04-151-27a	1:100	SCREEN
54)		Sample	54	M0421054	M140328W	04-151-28a	1:100	SCREEN
55)		Sample	55	M0421055	M140328W	04-151-29a	1:100	SCREEN

OnSite Environmental Inc.

WATER EXTRACTION LOG

Instrument Run #: M140421
Date: 4-21-14
Int. Std./Surr. Stock#: V3-125-12 / V3-125-13
Matrix Spike Stock#: V3-125-5

# of Sample	Date	Sample I.D.	Volume	pH of Sample	Analyst	Miscellaneous
	4-21-14	MB042114W1	25mL	7	SD	
		SB042114W1		7		
1		04-123-01b		2		
2		-02b				
3		-03b				
4		-04b				
5		-05b				
6		04-137-01b				
		-01c MS				
		-01d MSD				
7		-02b				
8		-03b				
9		-04b				
10		-05b				
11		04-138-01b				
12		-02b				
13		-03b				
14		-04b				
15		-05b				
16		04-156-01b				
17		-02b				
18		-03b				
19		-04b				
20		-05b				
		SD 4-22-14				

TITLE **PROJECT**

Continued from page 114

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
VOC ADD'S	V3-115-1							10-1-13	SD
250 ppm ICAL	V3-115-2	V3-114-4	2000 ppm	25 mL	1 mL	250 ppm	MeOH	10-1-13	SD
		V3-114-16							
		V3-115-1							
50 ppm ICAL	V3-115-3	V3-115-2	250 ppm	200 µL	1 mL	50 ppm	MeOH	10-1-13	SD
10 ppm ICAL	V3-115-4	V3-115-3	50 ppm	200 µL	1 mL	10 ppm	MeOH	10-1-13	SD
5 ppm ICAL	V3-115-5	V3-115-3	50 ppm	100 µL	1 mL	5 ppm	MeOH	10-1-13	SD
1 ppm ICAL	V3-115-6	V3-115-3	50 ppm	20 µL	1 mL	1 ppm	MeOH	10-1-13	SD
50 ppm SS (Trace)	V3-115-7	V3-113-16	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
50 ppm CCV	V3-115-8	V3-101-7	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
		V3-101-8							
		V3-101-9							
50 ppm CCV	V3-115-9	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
		V3-114-16							
		V3-115-1							
2000 ppm SS	V3-115-10							10-7-13	SD
250 ppm SS	V3-115-11	V3-113-16	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-7-13	SD
		V3-115-10							
250 ppm IS	V3-115-12	V3-114-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-8-13	SD
LCSD 50 ppm SS	V3-115-13	V3-115-10	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	SD
LCS 50 ppm SS	V3-115-14	V3-114-14	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	SD
.05 ppm ICAL	V3-115-15	V3-115-6	1 ppm	.050 mL	1 mL	.050 ppm	MeOH	10-9-13	SD
50 ppm CCV	V3-115-16	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-10-13	SD
		V3-114-16							
		V3-115-1							
2500 ppm MS	V3-115-17							10-10-13	SD

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SIGNATURE

DISCLOSED TO AND UNDERSTOOD BY | DATE | PROPRIETARY INFORMATION

TITLE

PROJECT

Continued from page 120

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
2000 ppm IS	V3-121-1							2-3-14	SD
250 ppm IS	V3-121-2	V3-120-8 + V3-121-1	2000 ppm	500 µL	4 mL	250 ppb	MeOH	2-3-14	SD
50 ppm IS	V3-121-3	V3-120-9	2500 ppm	20 µL	1 mL	50 ppb	MeOH	2-3-14	SD
2000 ppm SS	V3-121-4							2-4-14	SD
250 ppm SS	V3-121-13 + V3-121-4	2000 ppm	500 µL	4 mL	1 mL	250 ppb	MeOH	2-4-14	SD
250 ppm SS	V3-121-5	V3-120-13 + V3-121-4	2000 ppm	500 µL	4 mL	250 ppb	MeOH	2-4-14	SD
VOC Liquids	V3-121-6							2-5-14	SD
VOC ADD IS	V3-121-7							2-5-14	SD
VOC GASES	V3-121-8							2-5-14	SD
250 ppm ICAL	V3-121-9	V3-121-6	2000 ppm	125 µL	1 mL	250 ppb	MeOH	2-5-14	SD
		V3-121-7							
		V3-121-8							
50 ppm ICAL	V3-121-10	V3-121-9	250 ppm	200 µL	1 mL	50 ppb	MeOH	2-5-14	SD
10 ppm ICAL	V3-121-11	V3-121-10	50 ppm	200 µL	1 mL	10 ppb	MeOH	2-5-14	SD
5 ppm ICAL	V3-121-12	V3-121-10	50 ppm	100 µL	1 mL	5 ppb	MeOH	2-5-14	SD

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 Exp: Nov 19,2022
1 mL 4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 212051380 Exp: Jun 1,2022
1 mL 4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502A-R3-10X
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 Exp: Aug 30,2015
1 mL 55 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 213121006 Exp: Apr 3,2014
1 mL 8 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424 Exp: May 2,2016
1 mL 6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

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SIGNATURE DATE

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ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
1 ppm ICAL	V3-122-1	V3-121-10	5 ppm	20 mL	1 mL	1 ppm	MeOH	2-5-14	SD
5 ppm ICAL	V3-122-2	V3-121-1	1 ppm	5 mL	0.5 mL	0.5 ppm	MeOH	2-5-14	SD
ICV VOC LIQUIDS	V3-122-3								
ICV VOC ADDs	V3-122-4								
ICV VOC GASES	V3-122-5								
50 ppm ICV	V3-122-6	V3-122-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-5-14	SD
		V3-122-4	1	1	1	1	1	1	
		V3-122-5	1	1	1	1	1	1	
100 ppm ACRYL/DCB	V3-122-7	V3-117-11	100 ppm	500 µL	1 mL	100 ppm	MeOH	2-5-14	SD
		V3-117-12	100 ppm	500 µL					
50 ppm ACRYL/DCB	V3-122-8	V3-122-7	100 ppm	500 µL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ACRYL/DCB	V3-122-9	V3-122-8	50 ppm	200 µL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ACRYL/DCB	V3-122-10	V3-122-8	50 ppm	100 µL	1 mL	5 ppm	MeOH	2-5-14	SD
50 ppm CCV	V3-122-11	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-7-14	SD
		V3-121-7	2000 ppm	25 mL	1	1	1	1	
		V3-121-8	2000 ppm	25 mL	1	1	1	1	
250 ppm IS	V3-122-12	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-7-14	SD
250 ppm SS	V3-122-13	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-18-14	SD
2000 ppm IS	V3-122-14							2-24-14	SD
250 ppm IS	V3-122-15	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-24-14	SD
		V3-122-14	1	1	1	1	1	1	

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AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 213091216 55 comps.
Exp: Sep 19,2016 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214011413 8 comps.
Exp: Jun 3,2014 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-502B-10X 1 mL
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213071142 6 comps.
Exp: Jul 17,2016 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californi to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE PROPRIETARY INFORMATION

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PROJECT

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ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
50 ppm SS (tune)	V3-123-1	V3-121-4	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-26-14	SD
50 ppm CCV	V3-123-2	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-27-14	SD
		V3-121-7							
		V3-121-8							
waldo 50 ppm IS	V3-123-3	V3-122-14	2000 ppm	100 µL	4 mL	50 ppm	MeOH	2-27-14	EBM
waldo 50 ppm SS	V3-123-4	V3-121-4	2000 ppm	100 µL	4 mL	50 ppm	MeOH	2-27-14	EBM
~~2000 ppm SS~~	V3-123-5							2-28-14	SD
								spent	
								3-2-14	
Albert ~~250 ppm SS~~	V3-123-6	V3-121-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-28-14	SD
		V3-123-5							
Morris ~~50 ppm I.S.~~	V3-123-7	V3-122-14	2000 ppm	625 µL	25 mL	50 ppm	MeOH	3-6-14	SD
~~2000 ppm IS~~	V3-123-8							3-10-14	SD
								spent	
								3-13-14	
Albert 250 ppm IS	V3-123-9	V3-122-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
		V3-123-8							
Albert ~~250 ppm SS~~	~~V3-123-10~~	~~V3-123-5~~	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
50 ppm CCV	V3-123-11	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-10-14	SD
		V3-121-7							
		V3-121-8							
~~50 ppm CCV~~	~~V3-123-12~~	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-13-14	SD
		V3-121-7							
		V3-121-8							
VOC GASES	V3-123-13							3-13-14	SD
50 ppm CCV	V3-123-14	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-13-14	SD
		V3-121-7							
		V3-123-13							

Continued to page

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028
Exp: Nov 6,2023
1 mL
4 comps.
HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287
Exp: Nov 19,2022
1 mL
4 comps.
HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424
Exp: May 2,2016
1 mL
6 comps.
HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or othe reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

SIGNATURE DATE

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PROPRIETARY INFORMATION

V3 -124
BOOK PAGE

TITLE

PROJECT

Continued from page 123	Lab	Stock	Stock	Stock	Final	Final	Solvent	Date	Initials
Analyte	ID	ID	conc.	Vol.	Vol.	conc.			
250 ppm IS/SS	V3-124-1	V3-123-8	2000 ppm	250 µL	2 mL	250 ppm	MeOH	3-14-14	CEM
↓	↓	V3-123-5	↓	250 µL	↓	↓	↓	↓	↓
50 ppm MS	V3-124-2	V3-115-17	7500 ppm	20 µL	1 mL	50 ppm	MeOH	3-19-14	SD Discarded 3-24-14
50 ppm ICV	V3-124-3	V3-123-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-19-14	SD
		V3-123-4	↓	↓	↓	↓	↓	↓	↓
		V3-123-5	↓	↓	↓	↓	↓	↓	↓
VOC Liquids	V3-124-4							3-19-14	SD
VOC ADD's	V3-124-5							3-19-14	SD
250 ppm ICAL	V3-124-6	V3-123-3	2000 ppm	125 mL	1 mL	250 ppm	MeOH	3-19-14	SD
		V3-124-4	↓	↓	↓	↓	↓	↓	↓
		V3-124-5	↓	↓	↓	↓	↓	↓	↓
50 ppm ICAL	V3-124-7	V3-124-6	250 ppm	200	1 mL	50 ppm	MeOH	3-19-14	SD
10 ppm ICAL	V3-124-8	V3-124-7	50 ppm	200	1 mL	10 ppm	MeOH	3-19-14	SD
5 ppm ICAL	V3-124-9	V3-124-7	50 ppm	100	1 mL	5 ppm	MeOH	3-19-14	SD
1 ppm ICAL	V3-124-10	V3-124-7	50 ppm	20	1 mL	1 ppm	MeOH	3-19-14	SD
ICV 50 ppm	V3-124-11	V3-123-13	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-19-14	SD Discarded 4-15-14
		V3-124-4	↓	↓	↓	↓	↓	↓	↓
		V3-124-5	↓	↓	↓	↓	↓	↓	↓
2000 ppm SS	V3-124-12							3-21-14	SD Spiked 4-2-14
250 ppm IS	V3-124-13	V3-123-8	2000 ppm	500 mL	4 mL	250 ppm	MeOH	3-21-14	SD Discarded 3-31-14
250 ppm SS	V3-124-14	V3-123-5	2000 ppm	500 mL	4 mL	250 ppm	MeOH	3-21-14	SD Spiked 3-31-14
		V3-124-12	↓	↓	↓	↓	↓	↓	↓
8000 ppm IS	V3-124-15							3-31-14	SD
									Spiked 4-2-14

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DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214021286 8 comps.
Exp: Jun 28,2014 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Storage: Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6,2023 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

TITLE

PROJECT

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	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
Albert	~~250 ppm IS~~	~~V3-125-1~~	~~V3-123-8~~ V3-124-15	2000 ppm	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-31-14~~	~~SD~~
Albert	~~250 ppm SS~~	~~V3-125-2~~	~~V3-124-12~~	2000 ppm	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-31-14~~	~~SD~~
Albert	~~250 ppm IS~~	~~V3-125-3~~	~~V3-124-15~~	~~2000 ppm~~	~~250 µL~~ 25 µL	~~2 mL~~ 1mL 25 µL	~~250 ppm~~ 50 ppm 1mL	MeOH	4-9-14	SD
	50 ppm CCV	V3-125-4	V3-123-13	2000 ppm	~~2000 ppm~~	~~25 µL~~ 1mL	50 ppm	MeOH	4-9-14	SD
			V3-124-4			50 µL MeOH				
			V3-124-5							
10	50 ppm M.S.	V3-125-5	V3-115-17	2500 ppm	20 µL	1mL	50 ppm	MeOH	4-9-14	SD
Albert	~~250 ppm SS~~	~~V3-125-6~~	~~V3-124-12~~	~~2000 ppm~~	~~250 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-14-14~~	~~SD~~
Albert	~~250 ppm IS~~	~~V3-125-7~~	~~V3-124-15~~	~~2000 ppm~~	~~250 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-16-14~~	~~SD~~
	2000 ppm IS	V3-125-8							4-21-14	SD
15										
	2000 ppm SS	V3-125-9							4-21-14	SD
20										
Albert	250 ppm IS	V3-125-10	V3-124-15	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-21-14	SD
Albert	250 ppm SS	V3-125-11	V3-125-9	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-21-14	SD
Morris	50 ppm IS	V3-125-12	V3-125-8	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
Morris	50 ppm SS	V3-125-13	V3-125-9	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
25										
30										
35										

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
4 comps.
Lot: 212111287
Exp: Nov 19,2022
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
Storage: Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
4 comps.
Lot: 213111028
Exp: Nov 6,2023
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

Continued to page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

April 25, 2014

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0180-121-09
Laboratory Reference No. 1404-157

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on April 18, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: April 25, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-157
Project: 0180-121-09

Case Narrative

Samples were collected on April 17, 2014 and received by the laboratory on April 18, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: April 25, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-157
Project: 0180-121-09

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-ES-04-140417	04-157-01	Water	4-17-14	4-18-14	
MW-102-140417	04-157-02	Water	4-17-14	4-18-14	
MW-ES-11-140417	04-157-03	Water	4-17-14	4-18-14	
DUP-2-140417	04-157-04	Water	4-17-14	4-18-14	
RIN-2-140417	04-157-05	Water	4-17-14	4-18-14	
TB-2-140417	04-157-06	Water	4-17-14	4-18-14	

Date of Report: April 25, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-157
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-ES-04-140417**					
Laboratory ID:	04-157-01					
Vinyl Chloride	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Trichloroethene	0.31	0.20	EPA 8260C	4-24-14	4-24-14	
Tetrachloroethene	34	0.20	EPA 8260C	4-24-14	4-24-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*85*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: April 25, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-157
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-102-140417**					
Laboratory ID:	04-157-02					
Vinyl Chloride	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Trichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*85*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: April 25, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-157
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-ES-11-140417**					
Laboratory ID:	04-157-03					
Vinyl Chloride	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Trichloroethene	0.22	0.20	EPA 8260C	4-24-14	4-24-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*83*	*62-122*				
Toluene-d8	*93*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: April 25, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-157
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DUP-2-140417**					
Laboratory ID:	04-157-04					
Vinyl Chloride	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Trichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*84*	*62-122*				
Toluene-d8	*94*	*70-120*				
4-Bromofluorobenzene	*91*	*71-120*				

Date of Report: April 25, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-157
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RIN-2-140417**					
Laboratory ID:	04-157-05					
Vinyl Chloride	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Trichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*84*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: April 25, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-157
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TB-2-140417**					
Laboratory ID:	04-157-06					
Vinyl Chloride	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Trichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*84*	*62-122*				
Toluene-d8	*94*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: April 25, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-157
Project: 0180-121-09

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0424W1					
Vinyl Chloride	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Trichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*82*	*62-122*				
Toluene-d8	*94*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: April 25, 2014
Samples Submitted: April 18, 2014
Laboratory Reference: 1404-157
Project: 0180-121-09

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0424W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**8.25**	**7.88**	10.0	10.0	83	79	63-142	5	17	
Benzene	**8.37**	**8.32**	10.0	10.0	84	83	78-125	1	15	
Trichloroethene	**8.92**	**8.89**	10.0	10.0	89	89	80-125	0	15	
Toluene	**8.75**	**8.77**	10.0	10.0	88	88	80-125	0	15	
Chlorobenzene	**10.3**	**10.2**	10.0	10.0	103	102	80-140	1	15	
Surrogate:										
Dibromofluoromethane					*81*	*80*	*62-122*			
Toluene-d8					*92*	*93*	*70-120*			
4-Bromofluorobenzene					*92*	*94*	*71-120*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

13

Company: GEI
Project Number: 0180-121-09
Project Name: Palermo
Project Manager: Nick Rohrbach
Sampled by: HLM/PDR

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 04-157

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C project list	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
1	MW-ES-04-140417	4/17/14	1040	GW	3					X											
2	MW-102-140417		1155		3					X											
3	MW-ES-11-140417		1425		3					X											
4	DUP-2-140417		1100		3					X											
5	RIN-2-140417		1523		3					X											
6	TB-2-140417				2					X											

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEI	4/18/14	820	
Received		Spkn	4/18	820	
Relinquished	"	"	"	1235	
Received		GSE	4/18/14	1235	
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☑ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 0180-121-09

OnSite Project Number: 04-157

Initiated by: AMV

Date Initiated: 4/18/14

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	(Yes)	No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	(Yes)	No	N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	(Yes)	No	N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	(Yes)	No		1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	(Yes)	No	Temperature: 1		
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	(N/A)			
1.7 How were the samples delivered?	Client	(Courier)	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	(Yes)	No	1 2 3 4	
2.2 Was the COC legible and written in permanent ink?	(Yes)	No	1 2 3 4	
2.3 Have samples been relinquished and accepted by each custodian?	(Yes)	No	1 2 3 4	
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	(Yes)	No	1 2 3 4	
2.5 Were all of the samples listed on the COC submitted?	(Yes)	No	1 2 3 4	
2.6 Were any of the samples submitted omitted from the COC?	Yes	(No)	1 2 3 4	

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	(No)		1 2 3 4	
3.2 Were any sample labels missing or illegible?	Yes	(No)		1 2 3 4	
3.3 Have the correct containers been used for each analysis requested?	(Yes)	No		1 2 3 4	
3.4 Have the samples been correctly preserved?	(Yes)	No	N/A	1 2 3 4	
3.5 Are volatiles samples free from headspace and air bubbles?	(Yes)	No	N/A	1 2 3 4	
3.6 Is there sufficient sample submitted to perform requested analyses?	(Yes)	No		1 2 3 4	
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	(No)		1 2 3 4	
3.8 Was method 5035A used?	Yes	No	(N/A)	1 2 3 4	
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		(N/A)	1 2 3 4	

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

//SERVER\OSE\Administration\forms\cooler_checklist.xls

Complete Data Package

- Volatiles by EPA 8260C

Volatiles by EPA 8260C Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424020.d
Acq On : 24 Apr 2014 3:53 pm
Operator :
Sample : 04-157-01b
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 24 16:09:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

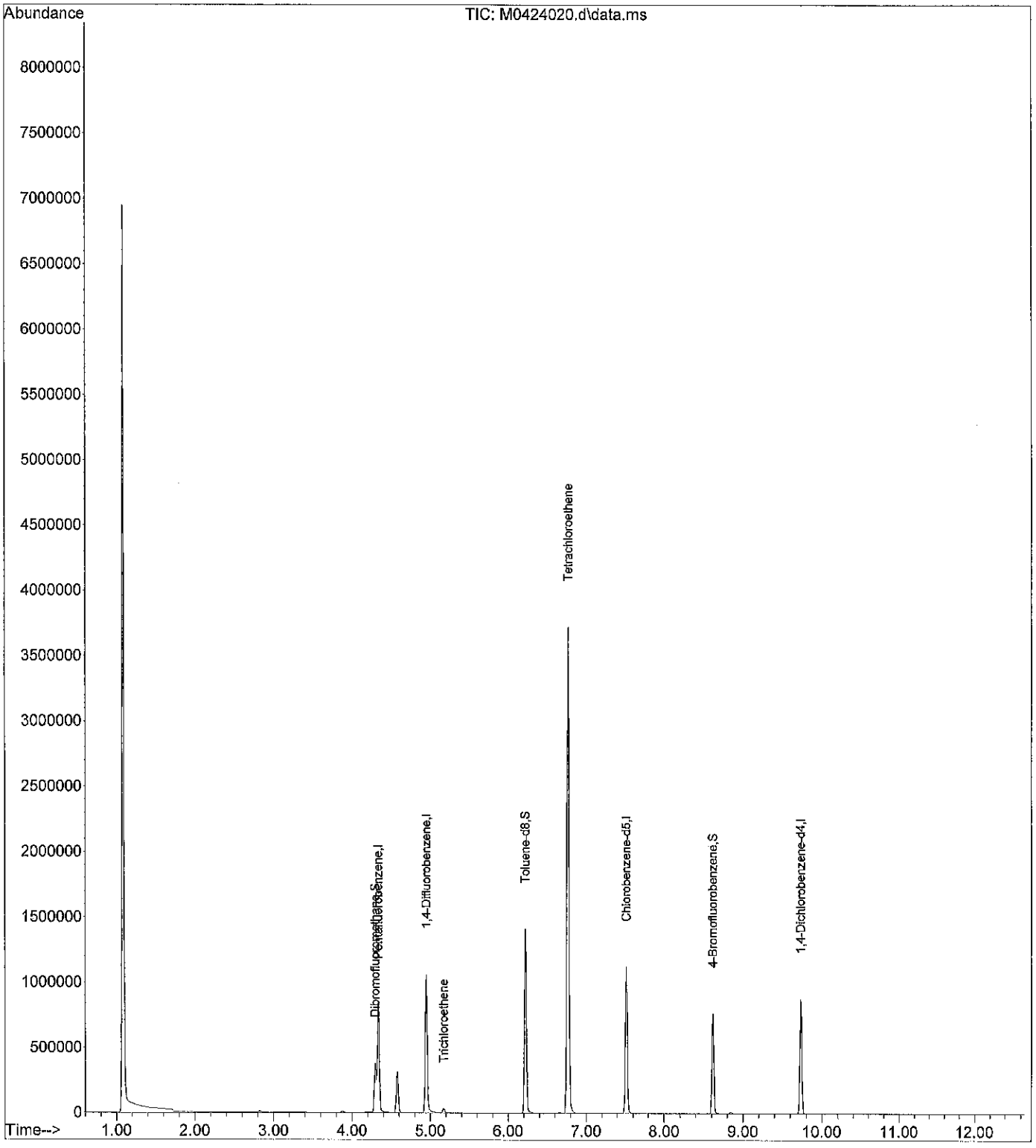
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	540343	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	785590	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	624108	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	250651	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	207946	8.45	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.50%			
36) Toluene-d8	6.220	98	884144	9.55	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.50%			
54) 4-Bromofluorobenzene	8.622	95	256967	9.28	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.80%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	10846	0.31	ppb	100
41) Tetrachloroethene	6.769	166	1156385	33.96	ppb	99

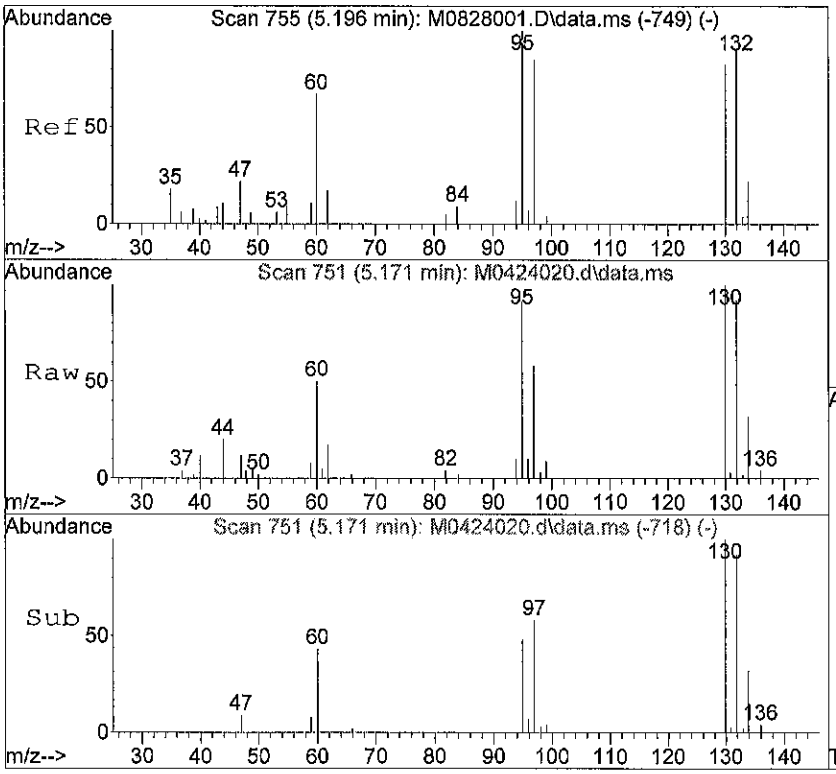
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424020.d
Acq On : 24 Apr 2014 3:53 pm
Operator :
Sample : 04-157-01b
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 24 16:09:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

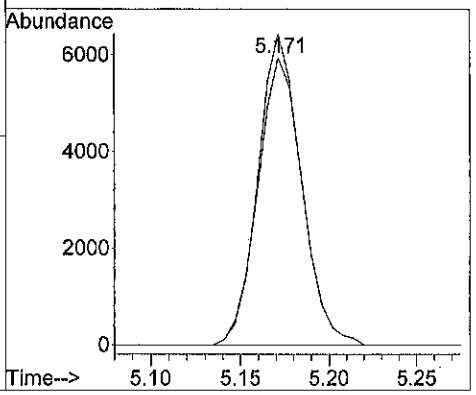


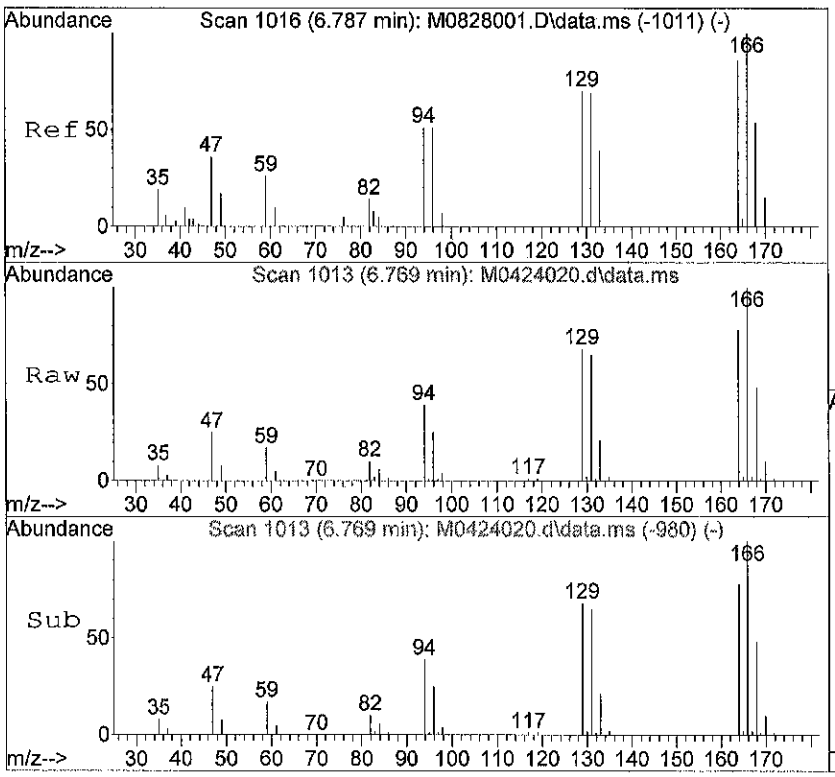


#29
Trichloroethene
Concen: 0.31 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0424020.d
Acq: 24 Apr 2014 3:53 pm

Tgt Ion:130 Resp: 10846

Ion	Ratio	Lower	Upper
130	100		
132	95.9	77.0	115.6

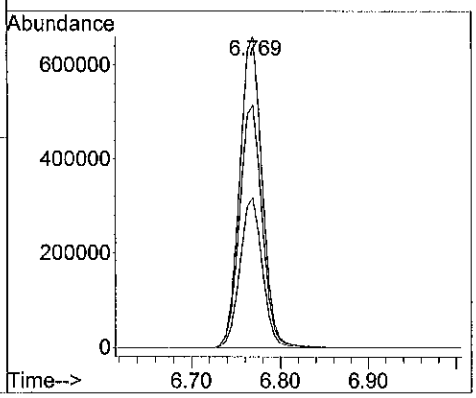




#41
Tetrachloroethene
Concen: 33.96 ppb
RT: 6.769 min Scan# 1013
Delta R.T. -0.000 min
Lab File: M0424020.d
Acq: 24 Apr 2014 3:53 pm

Tgt Ion:166 Resp: 1156385

Ion	Ratio	Lower	Upper
166	100		
168	47.8	37.4	56.0
164	78.5	62.7	94.1



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424012.d
Acq On : 24 Apr 2014 12:26 pm
Operator :
Sample : 04-157-02b
Misc :
ALS Vial : 12 Sample Multiplier: 1

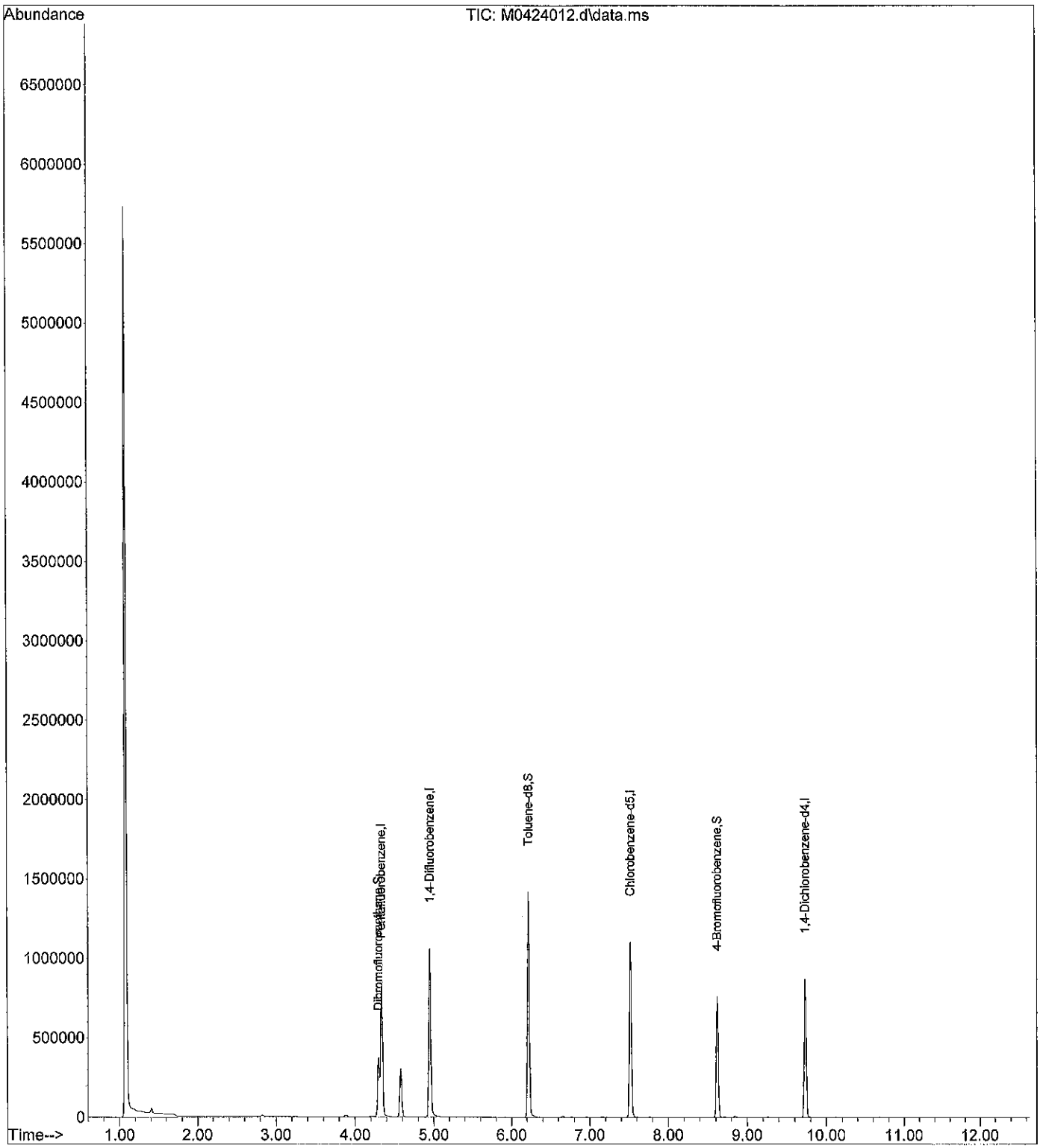
Quant Time: Apr 24 12:59:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	544370	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	778970	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	616193	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	243243	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	209486	8.45	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.50%			
36) Toluene-d8	6.220	98	882268	9.61	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.10%			
54) 4-Bromofluorobenzene	8.622	95	257276	9.41	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.10%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424012.d
Acq On : 24 Apr 2014 12:26 pm
Operator :
Sample : 04-157-02b
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 24 12:59:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424013.d
Acq On : 24 Apr 2014 12:49 pm
Operator :
Sample : 04-157-03b
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 24 13:39:14 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

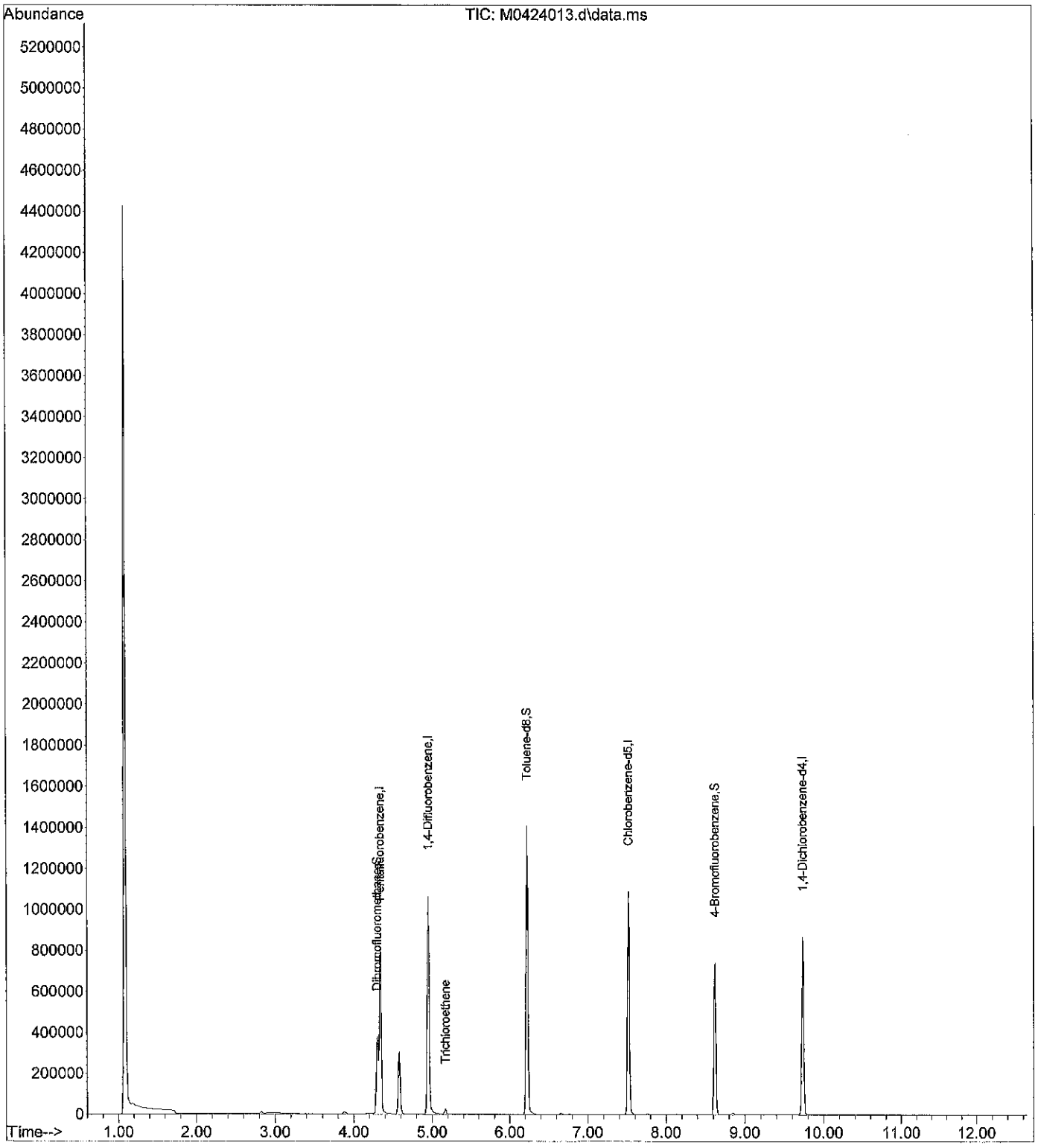
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	545458	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	788072	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	607059	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	243685	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	206729	8.32	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 83.20%			
36) Toluene-d8	6.220	98	867866	9.34	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.40%			
54) 4-Bromofluorobenzene	8.622	95	252259	9.36	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.60%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	7530	0.22	ppb	95

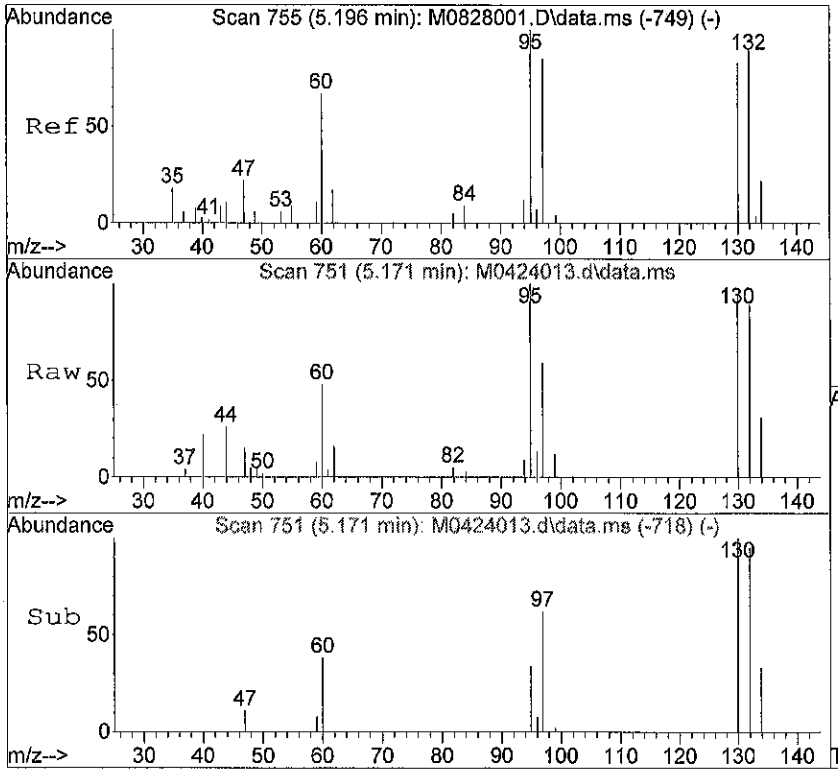
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424013.d
Acq On : 24 Apr 2014 12:49 pm
Operator :
Sample : 04-157-03b
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 24 13:39:14 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

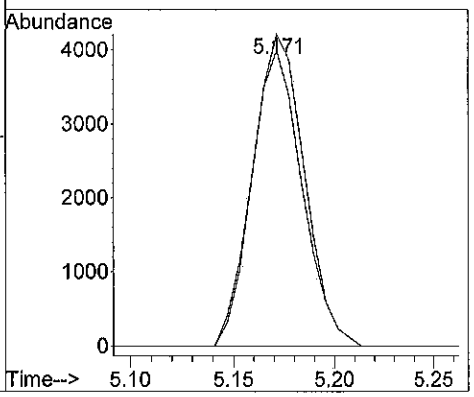




#29
Trichloroethene
Concen: 0.22 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0424013.d
Acq: 24 Apr 2014 12:49 pm

Tgt Ion:130 Resp: 7530

Ion	Ratio	Lower	Upper
130	100		
132	91.9	77.0	115.6



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424014.d
Acq On : 24 Apr 2014 1:13 pm
Operator :
Sample : 04-157-04b
Misc :
ALS Vial : 14 Sample Multiplier: 1

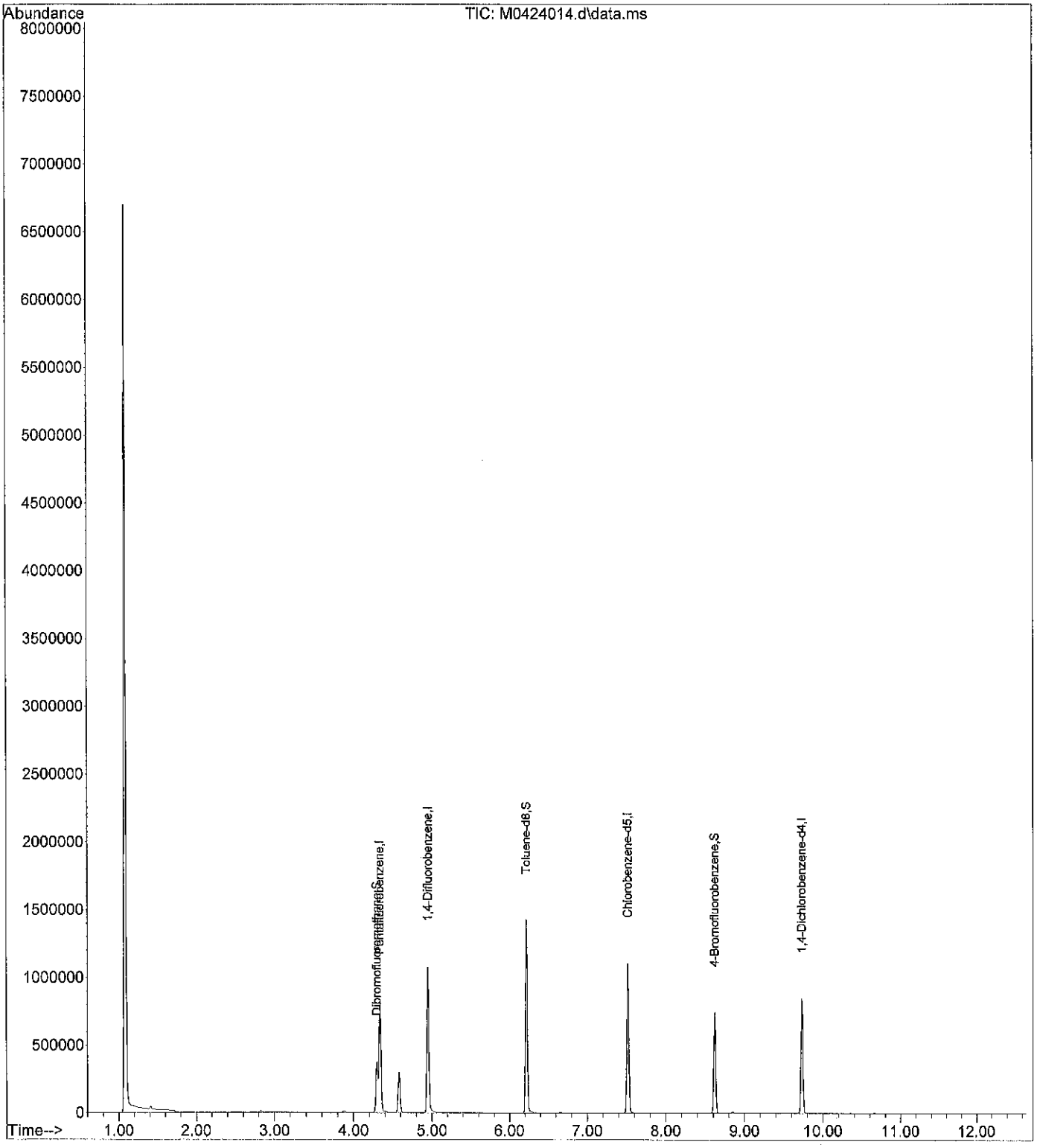
Quant Time: Apr 24 13:39:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	541661	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	789635	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	619674	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	240603	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	206395	8.37	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 83.70%			
36) Toluene-d8	6.220	98	877353	9.43	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 94.30%			
54) 4-Bromofluorobenzene	8.622	95	250803	9.12	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 91.20%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424014.d
Acq On : 24 Apr 2014 1:13 pm
Operator :
Sample : 04-157-04b
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 24 13:39:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424015.d
Acq On : 24 Apr 2014 1:36 pm
Operator :
Sample : 04-157-05b
Misc :
ALS Vial : 15 Sample Multiplier: 1

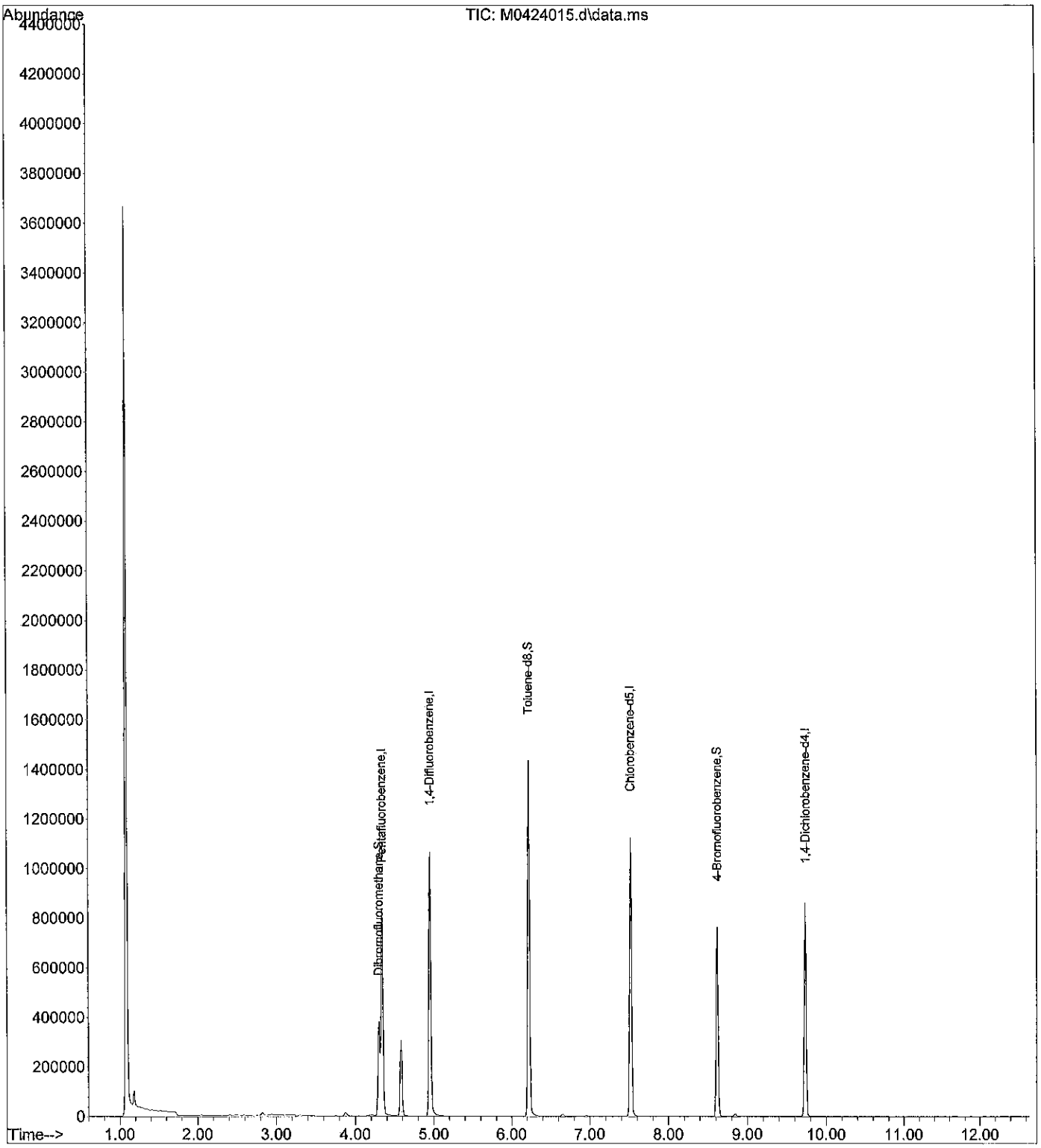
Quant Time: Apr 24 14:14:12 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	546803	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	781836	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	617150	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.737	152	243624	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	208780	8.38	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 83.80%			
36) Toluene-d8	6.220	98	886103	9.62	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.20%			
54) 4-Bromofluorobenzene	8.622	95	254943	9.31	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.10%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424015.d
Acq On : 24 Apr 2014 1:36 pm
Operator :
Sample : 04-157-05b
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 24 14:14:12 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424022.d
Acq On : 24 Apr 2014 4:40 pm
Operator :
Sample : 04-157-06b
Misc :
ALS Vial : 22 Sample Multiplier: 1

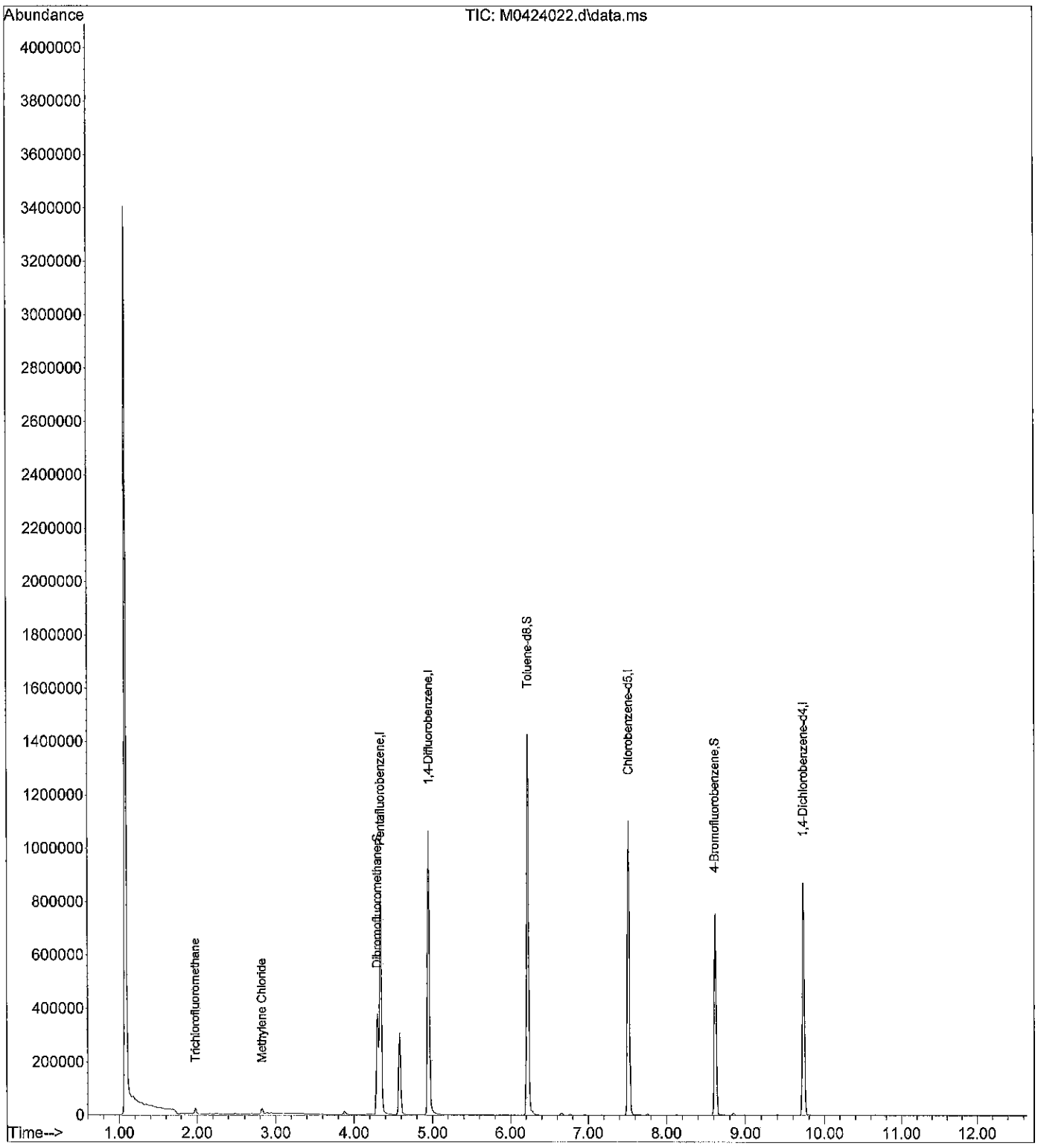
Quant Time: Apr 24 16:55:25 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

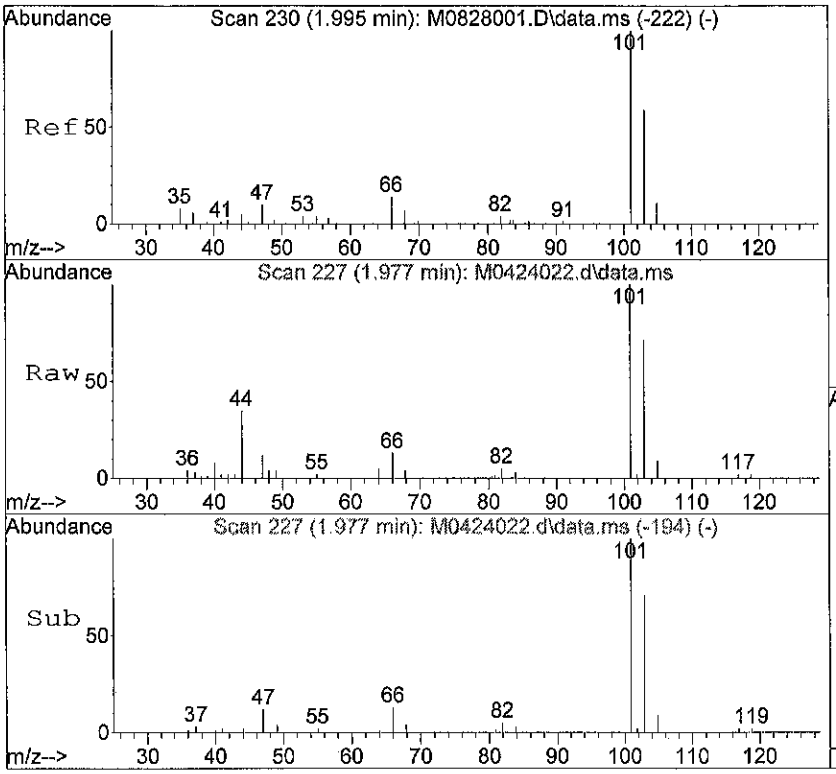
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	543596	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	791529	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	613134	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	243418	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	209163	8.45	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.50%			
36) Toluene-d8	6.220	98	878772	9.42	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 94.20%			
54) 4-Bromofluorobenzene	8.616	95	253727	9.32	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.20%			
Target Compounds						Qvalue
7) Trichlorofluoromethane	1.977	101	14836	0.25	ppb	95
12) Methylene Chloride	2.824	49	11847	0.22	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424022.d
Acq On : 24 Apr 2014 4:40 pm
Operator :
Sample : 04-157-06b
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Apr 24 16:55:25 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

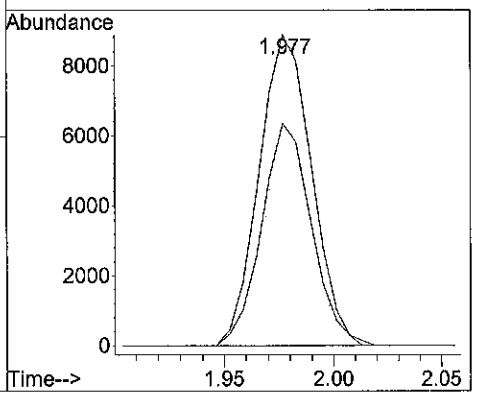


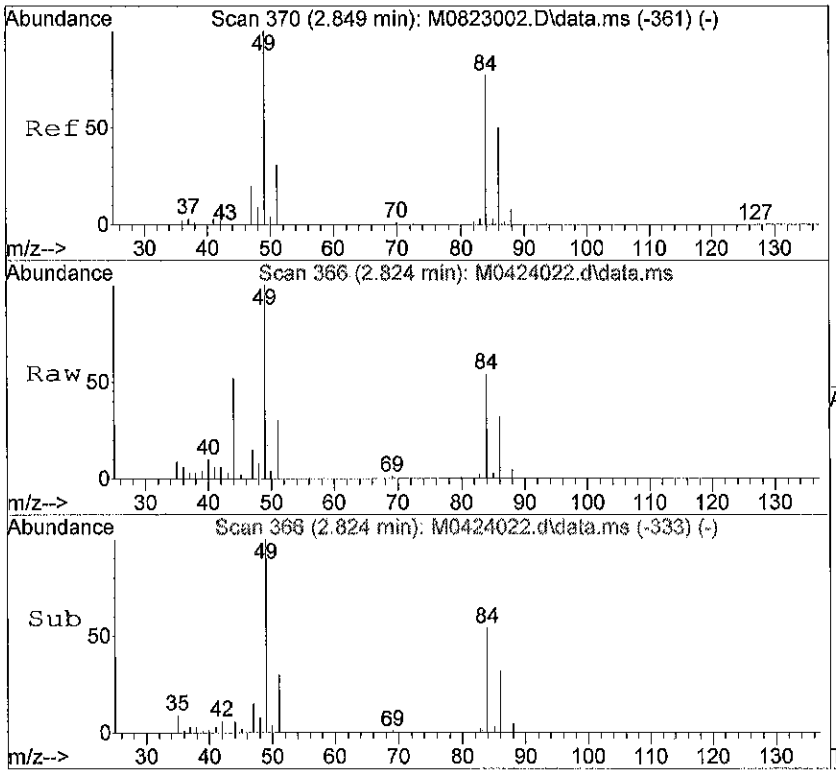


#7
Trichlorofluoromethane
Concen: 0.25 ppb
RT: 1.977 min Scan# 227
Delta R.T. -0.000 min
Lab File: M0424022.d
Acq: 24 Apr 2014 4:40 pm

Tgt Ion:101 Resp: 14836

Ion	Ratio	Lower	Upper
101	100		
103	67.9	51.4	77.0

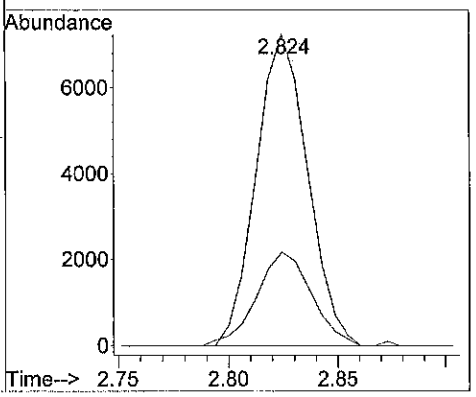




#12
Methylene Chloride
Concen: 0.22 ppb
RT: 2.824 min Scan# 366
Delta R.T. 0.000 min
Lab File: M0424022.d
Acq: 24 Apr 2014 4:40 pm

Tgt Ion: 49 Resp: 11847

Ion	Ratio	Lower	Upper
49	100		
51	32.1	24.8	37.2



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424011.d
Acq On : 24 Apr 2014 12:03 pm
Operator :
Sample : MB0424W1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 24 12:58:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

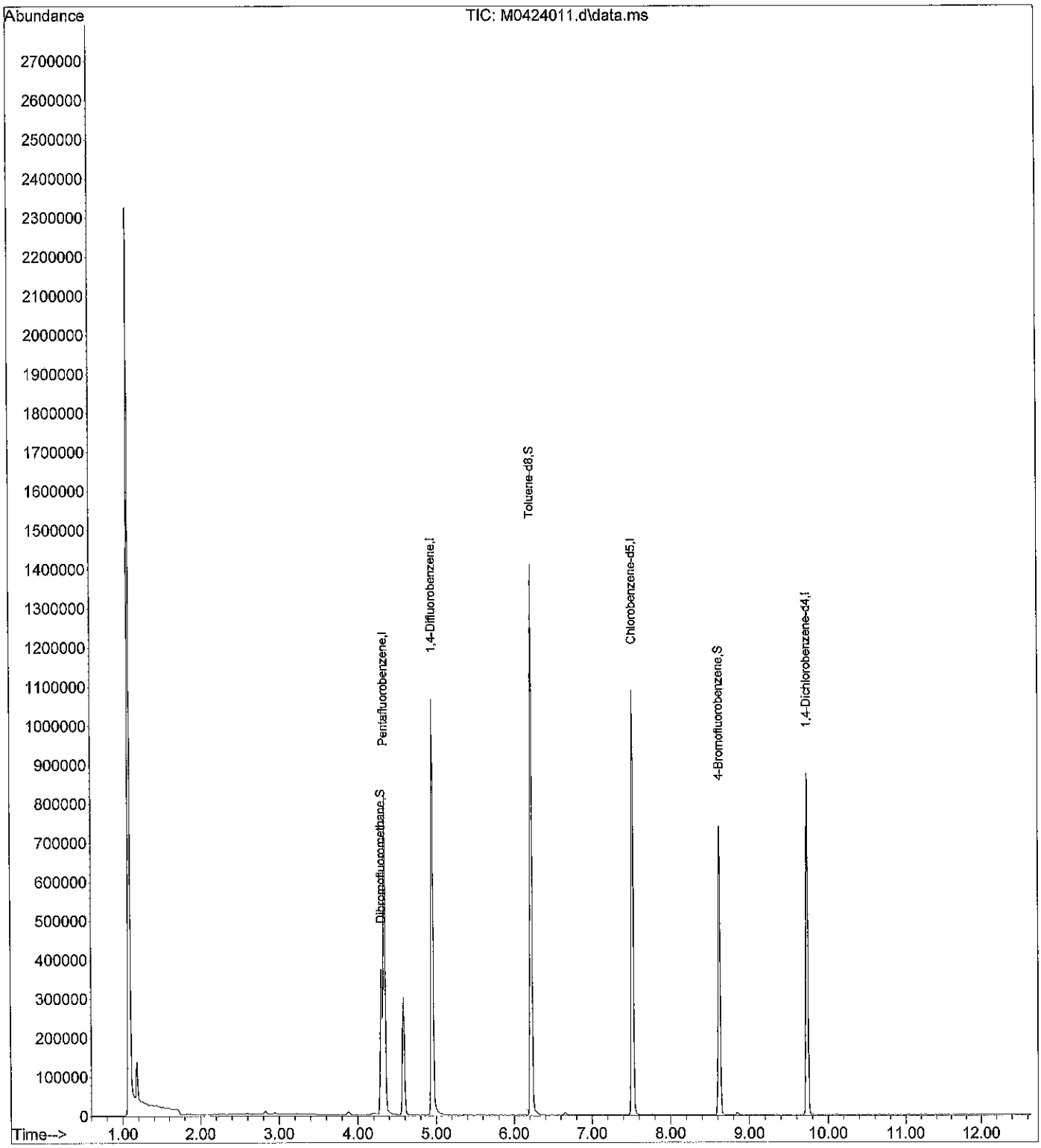
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	546057	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	785812	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	609082	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	242258	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	203928	8.20	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 82.00%			
36) Toluene-d8	6.220	98	867141	9.36	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.60%			
54) 4-Bromofluorobenzene	8.622	95	251135	9.29	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.90%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424011.d
Acq On : 24 Apr 2014 12:03 pm
Operator :
Sample : MB0424W1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 24 12:58:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424008.d
Acq On : 24 Apr 2014 10:44 am
Operator :
Sample : SB0424W1
Misc : V3-125-5
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 24 11:21:02 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

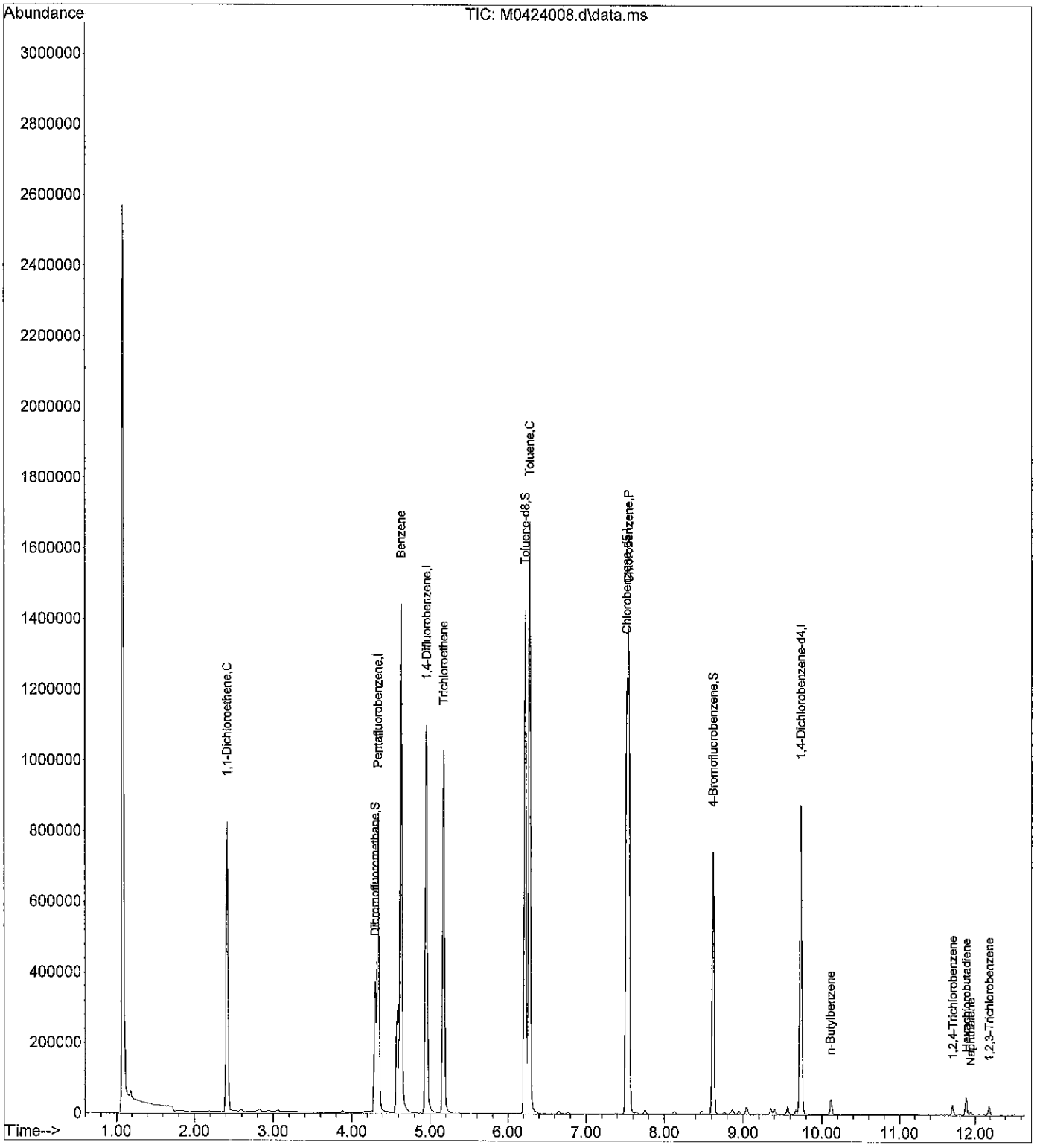
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	556225	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	819272	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	607674	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	239241	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	204446	8.07	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.70%				
36) Toluene-d8	6.220	98	883561	9.15	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 91.50%				
54) 4-Bromofluorobenzene	8.622	95	249516	9.25	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.50%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	527517	8.25	ppb		99
26) Benzene	4.629	78	1066577	8.37	ppb		99
29) Trichloroethene	5.171	130	322193	8.92	ppb		99
37) Toluene	6.275	91	1166121	8.75	ppb		100
46) Chlorobenzene	7.543	112	696506	10.29	ppb		99
70) n-Butylbenzene	10.109	91	19309	0.26	ppb		96
72) 1,2,4-Trichlorobenzene	11.707	180	10424	1.39	ppb		91
73) Hexachlorobutadiene	11.883	225	11339	1.62	ppb		96
74) Naphthalene	11.944	128	9442	1.06	ppb	#	91
75) 1,2,3-Trichlorobenzene	12.188	180	8879	1.93	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424008.d
Acq On : 24 Apr 2014 10:44 am
Operator :
Sample : SB0424W1
Misc : V3-125-5
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 24 11:21:02 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424009.d
Acq On : 24 Apr 2014 11:08 am
Operator :
Sample : SBD0424W1
Misc : V3-125-5
ALS Vial : 9 Sample Multiplier: 1

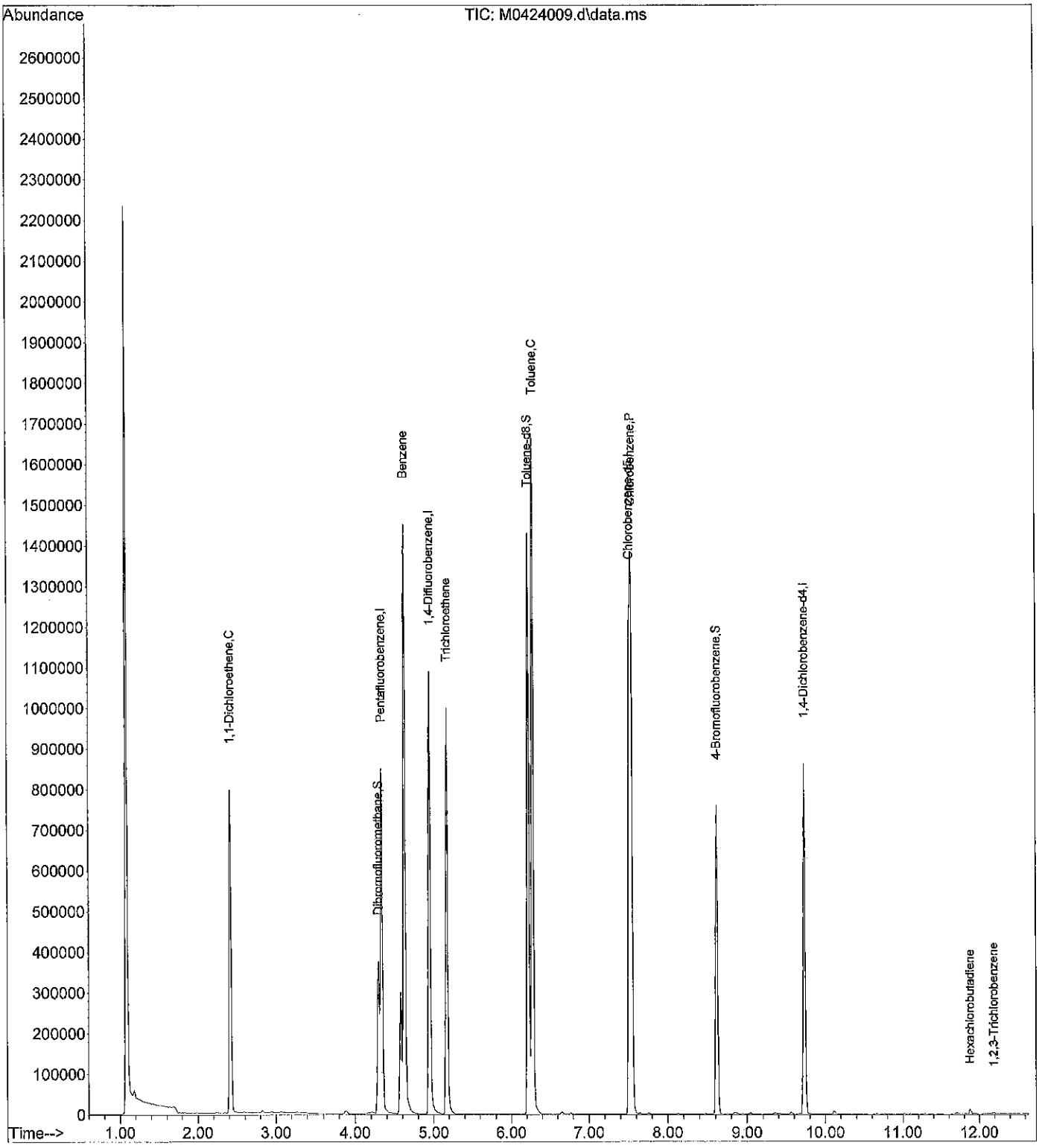
Quant Time: Apr 24 11:23:38 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	559404	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	818347	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	621360	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	242217	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	204542	8.03	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.30%			
36) Toluene-d8	6.220	98	895226	9.28	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 92.80%			
54) 4-Bromofluorobenzene	8.622	95	258476	9.37	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.70%			
Target Compounds						Qvalue
8) 1,1-Dichloroethene	2.416	61	506519	7.88	ppb	98
26) Benzene	4.629	78	1066762	8.32	ppb	99
29) Trichloroethene	5.171	130	320867	8.89	ppb	100
37) Toluene	6.281	91	1167571	8.77	ppb	99
46) Chlorobenzene	7.543	112	707235	10.22	ppb	100
73) Hexachlorobutadiene	11.877	225	2593	0.37	ppb	94
75) 1,2,3-Trichlorobenzene	12.188	180	1324	0.39	ppb	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424009.d
Acq On : 24 Apr 2014 11:08 am
Operator :
Sample : SBD0424W1
Misc : V3-125-5
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 24 11:23:38 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Compound List Report Morris

Method Path : C:\msdchem\1\methods\ .
Method File : M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014
Response Via : Initial Calibration

Total Cpnds : 75

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene	168	4.336	1.000	A	0	A	B
2		Dichlorodifluoromethane	85	1.209	0.279	A	1	A	B
3	P	Chloromethane	50	1.343	0.310	A	1	A	B
4	C	Vinyl Chloride	62	1.428	0.329	A	1	A	B
5		Bromomethane	96	1.690	0.390	A	1	A	B
6		Chloroethane	64	1.770	0.408	A	1	A	B
7		Trichlorofluoromethane	101	1.977	0.456	A	1	A	B
8	C	1,1-Dichloroethene	61	2.416	0.557	A	1	A	B
9		Acetone	43	2.471	0.570	L	1	A	B
10		Iodomethane	142	2.538	0.585	L	1	A	B
11		Carbon Disulfide	76	2.593	0.598	A	1	A	B
12		Methylene Chloride	49	2.824	0.651	A	1	A	B
13		(trans) 1,2-Dichloroethene	61	3.056	0.705	A	1	A	B
14		Methyl t-Butyl Ether	73	3.068	0.708	A	3	A	B
15	P	1,1-Dichloroethane	63	3.410	0.786	A	1	A	B
16		Vinyl Acetate	43	3.458	0.798	A	1	A	B
17		2,2-Dichloropropane	77	3.897	0.899	A	1	A	B
18		(cis) 1,2-Dichloroethene	61	3.897	0.899	A	1	A	B
19		2-Butanone	43	3.922	0.905	A	1	A	B
20		Bromochloromethane	130	4.098	0.945	A	3	A	B
21	C	Chloroform	83	4.165	0.961	A	1	A	B
22		1,1,1-Trichloroethane	97	4.318	0.996	A	1	A	B
23	S	Dibromofluoromethane	111	4.300	0.992	A	1	A	B
24		Carbon Tetrachloride	117	4.458	1.028	A	1	A	B
25		1,1-Dichloropropene	75	4.452	1.027	A	1	A	B
26		Benzene	78	4.629	1.068	A	1	A	B
27		1,2-Dichloroethane	62	4.641	1.070	A	1	A	B
28	I	1,4-Difluorobenzene	114	4.952	1.000	A	0	A	B
29		Trichloroethene	130	5.171	1.044	A	1	A	B
30	C	1,2-Dichloropropane	63	5.360	1.082	A	1	A	B
31		Dibromomethane	174	5.464	1.103	A	2	A	B
32		Bromodichloromethane	83	5.598	1.130	A	1	A	B
33		2-Chloroethyl Vinyl Ether	63	5.860	1.183	A	1	A	B
34		(cis) 1,3-Dichloropropene	75	5.982	1.208	A	1	A	B
35		Methyl Isobutyl Ketone	43	6.122	1.236	A	3	A	B
36	S	Toluene-d8	98	6.220	1.256	A	1	A	B
37	C	Toluene	91	6.275	1.267	A	1	A	B
38	I	Chlorobenzene-d5	117	7.518	1.000	A	1	A	B
39		(trans) 1,3-Dichloropropene	75	6.470	0.861	A	1	A	B
40		1,1,2-Trichloroethane	97	6.635	0.883	A	1	A	B
41		Tetrachloroethene	166	6.769	0.900	A	2	A	B
42		1,3-Dichloropropane	76	6.787	0.903	A	1	A	B
43		2-Hexanone	43	6.866	0.913	A	3	A	B
44		Dibromochloromethane	129	6.988	0.930	A	2	A	B
45		1,2-Dibromoethane	107	7.092	0.943	A	1	A	B
46	P	Chlorobenzene	112	7.543	1.003	A	1	A	B
47		1,1,1,2-Tetrachloroethane	133	7.616	1.013	A	2	A	B
48	C	Ethylbenzene	91	7.646	1.017	A	1	A	B
49		m,p-Xylene	91	7.756	1.032	A	1	A	B
50		o-Xylene	91	8.128	1.081	A	1	A	B
51		Styrene	104	8.140	1.083	A	0	A	B
52	P	Bromoform	173	8.311	1.105	A	2	A	B
53		Isopropylbenzene	105	8.476	1.127	A	1	A	B
54	S	4-Bromofluorobenzene	95	8.616	1.146	A	2	A	B

55 I	1,4-Dichlorobenzene-d4	152	9.731	1.000	A	1	A	B
56	Bromobenzene	156	8.762	0.900	A	1	A	B
57 P	1,1,2,2-Tetrachloroethane	83	8.762	0.900	A	1	A	B
58	1,2,3-Trichloropropane	75	8.799	0.904	A	1	A	B
59	n-Propylbenzene	91	8.872	0.912	A	1	A	B
60	2-Chlorotoluene	126	8.951	0.920	A	1	A	B
61	4-Chlorotoluene	126	9.055	0.931	A	1	A	B
62	1,3,5-Trimethylbenzene	105	9.043	0.929	A	1	A	B
63	tert-Butylbenzene	119	9.353	0.961	A	1	A	B
64	1,2,4-Trimethylbenzene	105	9.402	0.966	A	1	A	B
65	sec-Butylbenzene	105	9.567	0.983	A	1	A	B
66	1,3-Dichlorobenzene	146	9.670	0.994	A	1	A	B
67	p-Isopropyltoluene	119	9.713	0.998	A	1	A	B
68	1,4-Dichlorobenzene	146	9.756	1.003	A	1	A	B
69	1,2-Dichlorobenzene	146	10.116	1.040	A	1	A	B
70	n-Butylbenzene	91	10.109	1.039	A	1	A	B
71	1,2-Dibromo-3-chloropropane	157	10.884	1.118	A	2	A	B
72	1,2,4-Trichlorobenzene	180	11.701	1.202	A	2	A	B
73	Hexachlorobutadiene	225	11.883	1.221	A	2	A	B
74	Naphthalene	128	11.944	1.227	A	1	A	B
75	1,2,3-Trichlorobenzene	180	12.182	1.252	L	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

M140328W.M Fri Mar 28 13:13:22 2014

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014
Response Via : Initial Calibration

Calibration Files
.2 =M0328003.d 1 =M0328004.d 2 =M0328005.d 5 =M0328006.d 10 =M0328007.d 25 =M0328009.d
50 =M0328011.d .1 =M0716005.d

		Compound	.2	1	2	5	10	25	50	.1	Avg	%RSD
		ISTD										
1)	I	Pentafluorobenzene										
2)		Dichlorodifluo...	0.731	0.674	0.745	0.721	0.732	0.902	0.866		0.767#	10.86
3)	P	Chloromethane	1.322	1.085	1.163	1.119	1.136	1.255	1.220		1.186	7.07
4)	C	Vinyl Chloride	1.043	0.912	0.981	0.959	0.988	1.068	1.043		0.999#	5.52#
5)		Bromomethane	0.556	0.485	0.468	0.441	0.450	0.468	0.455		0.475#	8.17
6)		Chloroethane	0.625	0.496	0.509	0.492	0.506	0.527	0.513		0.524#	8.82
7)		Trichlorofluor...	1.156	1.019	1.056	1.033	1.070	1.117	1.080		1.076#	4.44
8)	C	1,1-Dichloroet...	1.241	1.098	1.119	1.116	1.139	1.185	1.149		1.150#	4.28#
9)		Acetone		0.091	0.094	0.079	0.071	0.071	0.065		0.079#	15.41
10)		Iodomethane		0.538	0.633	0.703	0.753	0.828	0.787		0.707#	15.14
11)		Carbon Disulfide	1.915	1.725	1.786	1.757	1.809	1.917	1.887		1.828#	4.27
12)		Methylene Chlo...	1.192	0.974	0.974	0.934	0.942	0.966	0.942		0.989#	9.22
13)		(trans) 1,2-Di...	1.274	1.090	1.151	1.091	1.147	1.190	1.161		1.158#	5.43
14)		Methyl t-Butyl...	0.739	0.711	0.732	0.724	0.712	0.737	0.748		0.729#	1.91
15)	P	1,1-Dichloroet...	1.345	1.272	1.313	1.288	1.313	1.365	1.339		1.319	2.47
16)		Vinyl Acetate		0.614	0.569	0.542	0.518	0.545			0.558#	6.53
17)		2,2-Dichloropr...	0.870	0.833	0.840	0.814	0.843	0.864	0.832		0.842#	2.31
18)		(cis) 1,2-Dich...	1.198	1.187	1.196	1.189	1.212	1.281	1.265		1.218#	3.17
19)		2-Butanone	0.125	0.124	0.129	0.120	0.116	0.119	0.113		0.121#	4.60
20)		Bromochloromet...	0.248	0.246	0.258	0.251	0.256	0.264	0.263		0.255#	2.79
21)	C	Chloroform	1.120	1.006	1.026	1.020	1.022	1.063	1.041		1.043#	3.72#
22)		1,1,1-Trichlor...	1.045	0.986	0.979	0.971	1.000	1.040	1.016		1.005#	2.90
23)	S	Dibromofluorom...	0.432	0.452	0.466	0.464	0.455	0.460	0.459		0.455#	2.52
24)		Carbon Tetrach...	1.007	0.907	0.921	0.894	0.918	0.975	0.953		0.939#	4.33
25)		1,1-Dichloropr...	0.957	0.826	0.855	0.825	0.850	0.898	0.887		0.871#	5.40
26)		Benzene	2.426	2.214	2.226	2.215	2.261	2.360	2.336		2.291#	3.64
27)		1,2-Dichloroet...	0.629	0.625	0.641	0.627	0.635	0.651	0.634		0.634#	1.46
		ISTD										
28)	I	1,4-Difluorobenzene										
29)		Trichloroethene	0.485	0.417	0.432	0.425	0.433	0.460	0.435		0.441#	5.29
30)	C	1,2-Dichloropr...	0.380	0.396	0.404	0.399	0.397	0.420	0.421		0.403#	3.55#
31)		Dibromomethane	0.113	0.127	0.135	0.131	0.129	0.135	0.134		0.129#	6.02
32)		Bromodichlorom...	0.366	0.406	0.402	0.392	0.396	0.417	0.423		0.400#	4.69
33)		2-Chloroethyl ...		0.019	0.022	0.020	0.020	0.022	0.026		0.022#	11.46
34)		(cis) 1,3-Dich...	0.357	0.379	0.399	0.410	0.417	0.457	0.460		0.411#	9.25
35)		Methyl Isobuty...	0.150	0.133	0.150	0.144	0.139	0.152	0.162		0.147#	6.45
36)	S	Toluene-d8	1.157	1.169	1.180	1.181	1.176	1.184	1.201		1.178#	1.16
37)	C	Toluene	1.762	1.581	1.569	1.556	1.567	1.668	1.689		1.628#	4.88#

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :

38)	I	Chlorobenzene-d5	ISTD								
39)		(trans) 1,3-Di...	0.329	0.326	0.342	0.341	0.362	0.382	0.382	0.352#	6.74
40)		1,1,2-Trichlor...	0.258	0.200	0.201	0.200	0.200	0.213	0.208	0.212#	10.00
41)		Tetrachloroethene	0.585	0.541	0.533	0.515	0.537	0.563	0.545	0.546#	4.10
42)		1,3-Dichloropr...	0.363	0.346	0.364	0.369	0.371	0.386	0.377	0.368#	3.43
43)		2-Hexanone	0.142	0.125	0.116	0.123	0.117	0.132	0.130	0.126#	7.09
44)		Dibromochlorom...	0.253	0.266	0.266	0.270	0.273	0.293	0.293	0.273#	5.38
45)		1,2-Dibromoethane	0.177	0.186	0.186	0.186	0.183	0.193	0.185	0.185#	2.57
46)	P	Chlorobenzene	1.255	1.079	1.070	1.047	1.080	1.139	1.123	1.113	6.29
47)		1,1,1,2-Tetrac...	0.341	0.354	0.343	0.353	0.362	0.379	0.379	0.359#	4.32
48)	C	Ethylbenzene	2.325	1.997	2.059	2.064	2.191	2.361	2.310	2.186#	6.78#
49)		m,p-Xylene	1.605	1.490	1.545	1.591	1.662	1.789	1.770	1.636#	6.82
50)		o-Xylene	1.494	1.366	1.422	1.447	1.507	1.624	1.603	1.495#	6.27
51)		Styrene	1.023	0.990	1.056	1.103	1.149	1.243	1.236	1.114#	8.97
52)	P	Bromoform	0.125	0.127	0.132	0.139	0.140	0.153	0.158	0.139	9.15
53)		Isopropylbenzene	1.831	1.673	1.754	1.804	1.913	2.064	2.019	1.865#	7.57
54)	S	4-Bromofluorob...	0.413	0.435	0.446	0.452	0.454	0.456	0.452	0.444#	3.48
55)	I	1,4-Dichlorobenzen...	ISTD								
56)		Bromobenzene	1.034	0.877	0.855	0.847	0.875	0.937	0.909	0.905#	7.16
57)	P	1,1,2,2-Tetrac...	0.459	0.445	0.425	0.427	0.414	0.440	0.458	0.438	3.93
58)		1,2,3-Trichlor...	0.352	0.338	0.369	0.338	0.335	0.349	0.341	0.346#	3.40
59)		n-Propylbenzene	6.049	4.935	4.930	4.942	5.346	5.647	5.494	5.335#	8.07
60)		2-Chlorotoluene	1.149	0.992	0.967	0.946	1.025	1.084	1.032	1.028#	6.82
61)		4-Chlorotoluene	1.079	0.964	0.958	0.954	1.011	1.056	1.040	1.009#	5.06
62)		1,3,5-Trimethy...	3.976	3.290	3.584	3.576	3.875	4.120	4.024	3.778#	7.96
63)		tert-Butylbenzene	3.231	2.588	2.781	2.779	3.103	3.224	3.128	2.977#	8.60
64)		1,2,4-Trimethy...	3.625	3.172	3.266	3.380	3.588	3.771	3.711	3.502#	6.57
65)		sec-Butylbenzene	4.557	3.886	3.983	4.040	4.421	4.650	4.517	4.293#	7.30
66)		1,3-Dichlorobe...	1.683	1.484	1.540	1.486	1.544	1.611	1.593	1.563#	4.57
67)		p-Isopropyltol...	3.569	2.941	3.184	3.180	3.473	3.704	3.617	3.381#	8.34
68)		1,4-Dichlorobe...	1.842	1.506	1.586	1.565	1.606	1.679	1.655	1.634#	6.61
69)		1,2-Dichlorobe...	1.147	1.061	1.102	1.111	1.127	1.195	1.194	1.134#	4.31
70)		n-Butylbenzene	3.362	2.757	2.828	2.927	3.122	3.314	3.297	3.086#	8.09
71)		1,2-Dibromo-3-...		0.040	0.049	0.048	0.050	0.056	0.056	0.050#	11.77
72)		1,2,4-Trichlor...	0.294	0.266	0.307	0.323	0.312	0.332	0.356	0.313#	9.10
73)		Hexachlorobuta...	0.353	0.269	0.277	0.291	0.281	0.290	0.290	0.293#	9.51
74)		Naphthalene		0.325	0.338	0.368	0.366	0.397	0.439	0.372#	11.18
75)		1,2,3-Trichlor...	0.123	0.149	0.177	0.203	0.199	0.196	0.211	0.180#	18.07

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	485934	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	740470	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	555715	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	198284	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.293	111	209890	9.62	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery	= 96.20%			
36) Toluene-d8	6.220	98	856932	9.84	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery	= 98.40%			
54) 4-Bromofluorobenzene	8.616	95	229303	9.00	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery	= 90.00%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	7107	0.19	ppb		100
3) Chloromethane	1.343	50	12848	0.22	ppb		100
4) Vinyl Chloride	1.428	62	10132	0.21	ppb		92
5) Bromomethane	1.684	96	5406	0.24	ppb		94
6) Chloroethane	1.763	64	6077	0.24	ppb		98
7) Trichlorofluoromethane	1.977	101	11235	0.22	ppb		97
8) 1,1-Dichloroethene	2.416	61	12064	0.22	ppb		99
9) ~~Acetone~~	2.465	43	3046	0.32	ppb		92
10) ~~Iodomethane~~	2.538	142	4255	0.53	ppb		96
11) Carbon Disulfide	2.593	76	18609	0.21	ppb		95
12) Methylene Chloride	2.824	49	11589	0.24	ppb		97
13) (trans) 1,2-Dichloroet...	3.056	61	12377	0.23	ppb		99
14) Methyl t-Butyl Ether	3.068	73	7179	0.20	ppb	#	88
15) 1,1-Dichloroethane	3.410	63	13071	0.21	ppb		96
16) ~~Vinyl Acetate~~	3.458	43	7482	0.66	ppb	#	81
17) 2,2-Dichloropropane	3.891	77	8459	0.20	ppb	#	78
18) (cis) 1,2-Dichloroethene	3.897	61	11646	0.20	ppb		96
19) 2-Butanone	3.916	43	1217	0.21	ppb	#	52
20) Bromochloromethane	4.092	130	2414	0.20	ppb		97
21) Chloroform	4.165	83	10889	0.22	ppb		98
22) 1,1,1-Trichloroethane	4.312	97	10155	0.21	ppb	#	1
24) Carbon Tetrachloride	4.452	117	9784	0.22	ppb		98
25) 1,1-Dichloropropene	4.452	75	9303	0.22	ppb		95
26) Benzene	4.629	78	23574	0.22	ppb		97
27) 1,2-Dichloroethane	4.641	62	6112	0.20	ppb		94
29) Trichloroethene	5.171	130	7176	0.23	ppb		90
30) 1,2-Dichloropropane	5.360	63	5631	0.19	ppb		95
31) Dibromomethane	5.458	174	1675	0.17	ppb	#	91
32) Bromodichloromethane	5.598	83	5416	0.18	ppb		91
33) ~~2-Chloroethyl Vinyl Ether~~	5.860	63	266	2.33	ppb	#	66
34) (cis) 1,3-Dichloropropene	5.982	75	5288	0.17	ppb		97
35) Methyl Isobutyl Ketone	6.122	43	2224	0.21	ppb	#	86
37) Toluene	6.275	91	26096	0.22	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	3652	0.19	ppb		95
40) 1,1,2-Trichloroethane	6.634	97	2870	0.25	ppb	#	81
41) Tetrachloroethene	6.763	166	6500	0.21	ppb		92
42) 1,3-Dichloropropane	6.787	76	4030	0.20	ppb		90
43) 2-Hexanone	6.866	43	1575	0.23	ppb	#	69
44) Dibromochloromethane	6.988	129	2814	0.19	ppb		95

SP 3-28-14

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

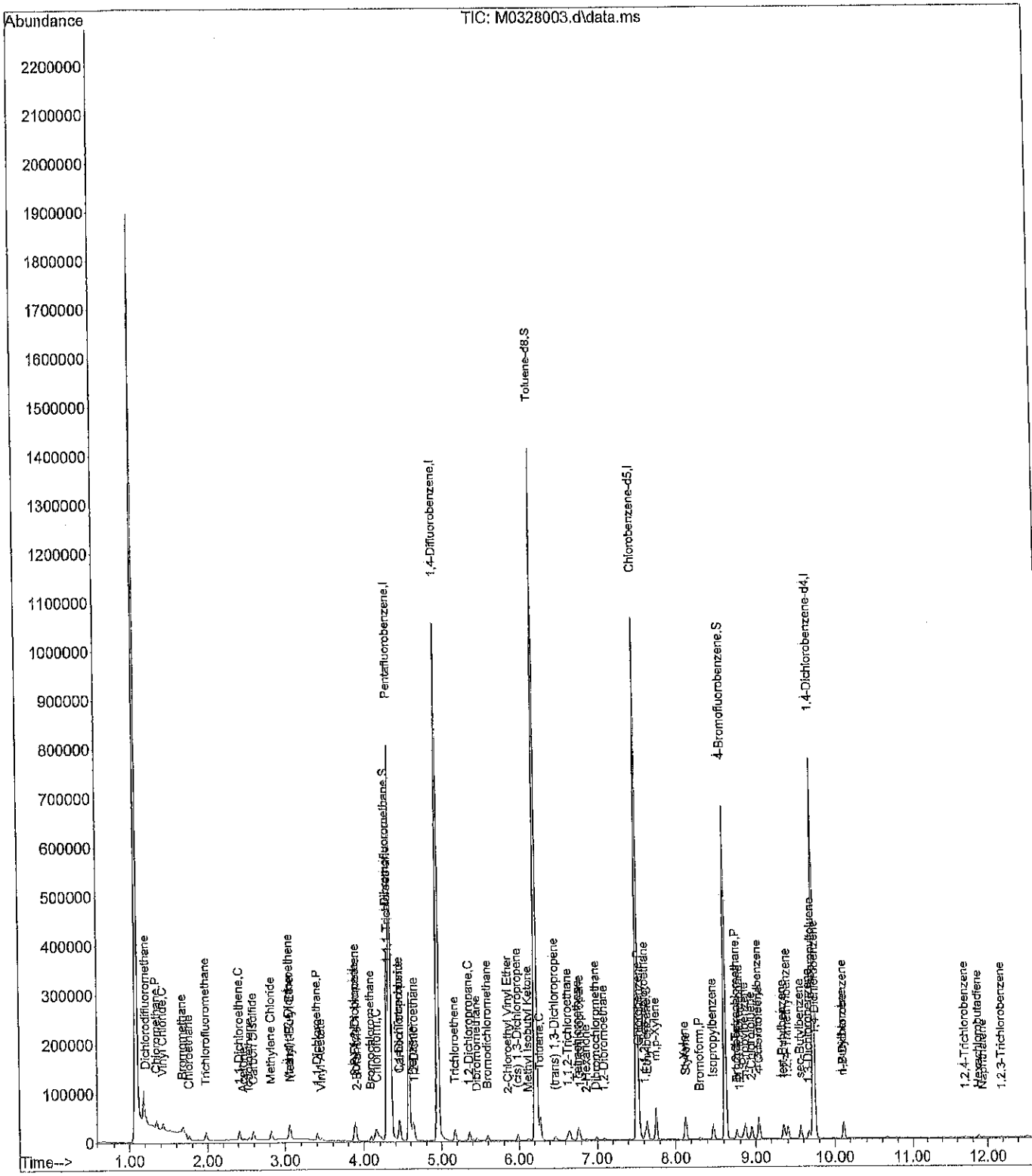
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	1962	0.20	ppb		100
46) Chlorobenzene	7.543	112	13952	0.23	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	3793	0.19	ppb		84
48) Ethylbenzene	7.646	91	25838	0.21	ppb		100
49) m,p-Xylene	7.756	91	35667	0.38	ppb		97
50) o-Xylene	8.128	91	16600	0.19	ppb		100
51) Styrene	8.140	104	11365	0.18	ppb		100
52) Bromoform	8.311	173	1384	0.18	ppb		93
53) Isopropylbenzene	8.476	105	20353	0.19	ppb		96
56) Bromobenzene	8.762	156	4101	0.24	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	1819	0.22	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	1394	0.22	ppb	#	100
59) n-Propylbenzene	8.872	91	23987	0.24	ppb		96
60) 2-Chlorotoluene	8.951	126	4557	0.23	ppb		98
61) 4-Chlorotoluene	9.055	126	4278	0.22	ppb		96
62) 1,3,5-Trimethylbenzene	9.043	105	15766	0.21	ppb		96
63) tert-Butylbenzene	9.353	119	12815	0.22	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	14377	0.20	ppb		97
65) sec-Butylbenzene	9.567	105	18071	0.21	ppb		96
66) 1,3-Dichlorobenzene	9.670	146	6674	0.21	ppb		100
67) p-Isopropyltoluene	9.713	119	14152	0.20	ppb		98
68) 1,4-Dichlorobenzene	9.756	146	7304	0.22	ppb		92
69) 1,2-Dichlorobenzene	10.116	146	4547	0.19	ppb		99
70) n-Butylbenzene	10.109	91	13331	0.20	ppb		99
72) 1,2,4-Trichlorobenzene	11.707	180	1167	0.10	ppb		93
73) Hexachlorobutadiene	11.877	225	1401	0.12	ppb		95
74) Naphthalene	11.944	128	1039	0.61	ppb	#	72
75) 1,2,3-Trichlorobenzene	12.188	180	489	0.21	ppb	#	67

(#) = qualifier out of range (m) = manual integration (+) = signals summed

SP 3.887M

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	481933	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	739712	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	582356	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	231509	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	217611	10.05	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.50%				
36) Toluene-d8	6.220	98	864840	9.94	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.40%				
54) 4-Bromofluorobenzene	8.622	95	253379	9.49	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.208	85	32485	0.86	ppb		98
3) Chloromethane	1.343	50	52278	0.91	ppb		94
4) Vinyl Chloride	1.428	62	43937	0.93	ppb		97
5) Bromomethane	1.684	96	23394	1.06	ppb		100
6) Chloroethane	1.769	64	23889	0.96	ppb		100
7) Trichlorofluoromethane	1.977	101	49091	0.95	ppb		97
8) 1,1-Dichloroethene	2.416	61	52907	0.97	ppb		100
9) Acetone	2.470	43	4405	0.76	ppb		99
10) Iodomethane	2.537	142	25915	1.10	ppb		95
11) Carbon Disulfide	2.592	76	83153	0.97	ppb		100
12) Methylene Chloride	2.824	49	46955	0.99	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	52507	0.97	ppb		97
14) Methyl t-Butyl Ether	3.068	73	34289	0.98	ppb		96
15) 1,1-Dichloroethane	3.409	63	61308	0.98	ppb		99
16) Vinyl Acetate	3.458	43	29613	1.27	ppb		98
17) 2,2-Dichloropropane	3.891	77	40125	0.98	ppb		97
18) (cis) 1,2-Dichloroethene	3.897	61	57200	0.99	ppb		99
19) 2-Butanone	3.921	43	5999	1.04	ppb		92
20) Bromochloromethane	4.098	130	11861	0.97	ppb		99
21) Chloroform	4.165	83	48474	0.99	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	47516	0.98	ppb	#	1
24) Carbon Tetrachloride	4.458	117	43733	0.97	ppb		94
25) 1,1-Dichloropropene	4.452	75	39817	0.96	ppb		97
26) Benzene	4.629	78	106694	0.99	ppb		99
27) 1,2-Dichloroethane	4.641	62	30108	1.00	ppb		99
29) Trichloroethene	5.171	130	30865	0.98	ppb		99
30) 1,2-Dichloropropane	5.360	63	29302	0.98	ppb		100
31) Dibromomethane	5.464	174	9426	0.98	ppb		96
32) Bromodichloromethane	5.598	83	30058	1.02	ppb		97
33) 2-Chloroethyl Vinyl Ether	5.860	63	1418	3.82	ppb		99
34) (cis) 1,3-Dichloropropene	5.982	75	28003	0.90	ppb		98
35) Methyl Isobutyl Ketone	6.122	43	9833	0.91	ppb		97
37) Toluene	6.275	91	116964	0.97	ppb		97
39) (trans) 1,3-Dichloropr...	6.470	75	18996	0.93	ppb		96
40) 1,1,2-Trichloroethane	6.634	97	11672	0.96	ppb		94
41) Tetrachloroethene	6.768	166	31504	0.98	ppb		97
42) 1,3-Dichloropropane	6.787	76	20143	0.94	ppb		99
43) 2-Hexanone	6.866	43	7271	1.02	ppb	#	92
44) Dibromochloromethane	6.988	129	15481	0.97	ppb		95

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

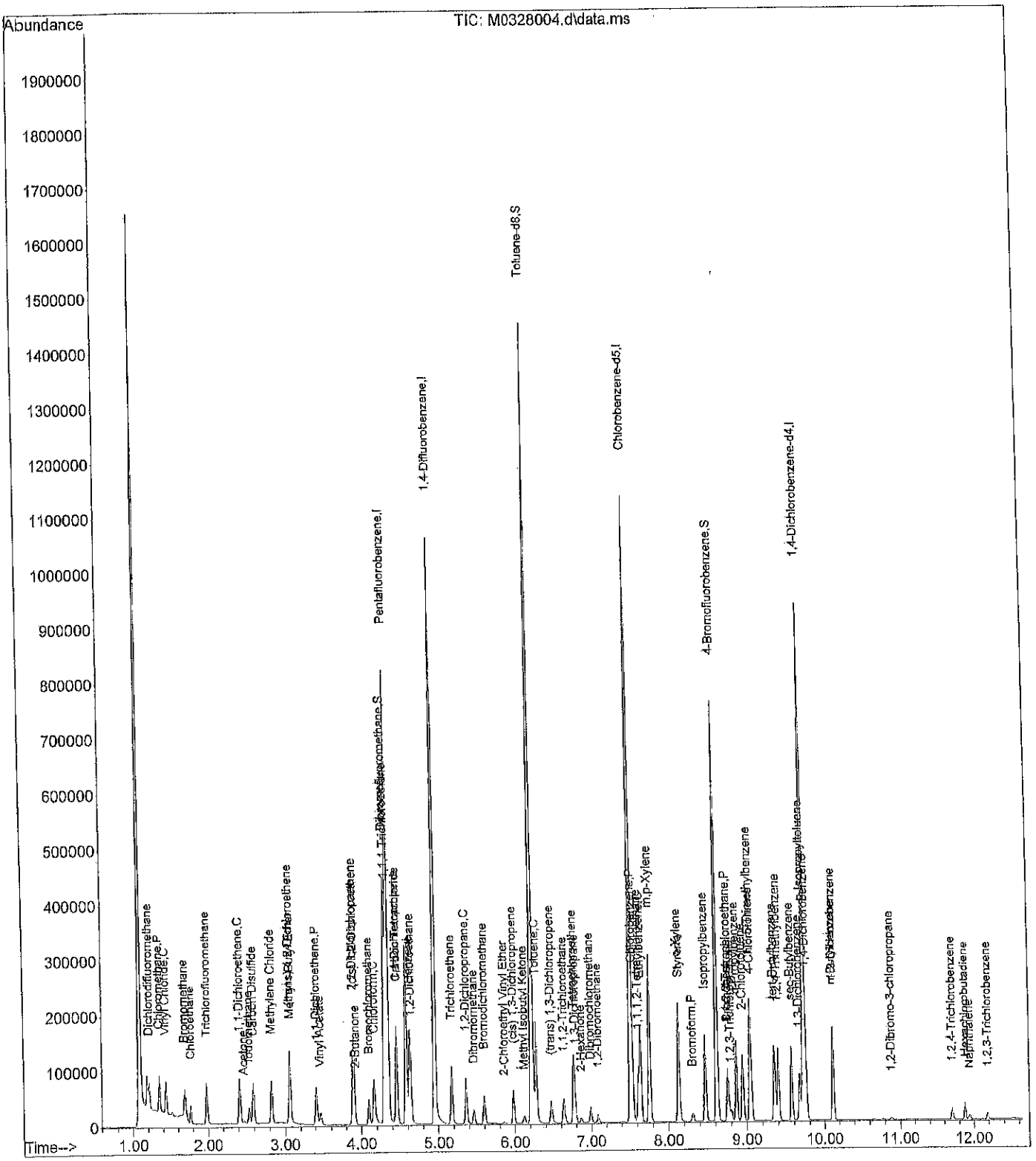
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.091	107	10813	1.03	ppb		89
46) Chlorobenzene	7.543	112	62839	0.97	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	20602	0.97	ppb		97
48) Ethylbenzene	7.646	91	116277	0.89	ppb		100
49) m,p-Xylene	7.756	91	173593	1.77	ppb		100
50) o-Xylene	8.128	91	79577	0.88	ppb		99
51) Styrene	8.140	104	57652	0.86	ppb		100
52) Bromoform	8.311	173	7371	0.89	ppb		96
53) Isopropylbenzene	8.475	105	97419	0.85	ppb		98
56) Bromobenzene	8.762	156	20310	1.04	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	10308	1.07	ppb		93
58) 1,2,3-Trichloropropane	8.798	75	7814	1.06	ppb	#	100
59) n-Propylbenzene	8.872	91	114247	0.97	ppb		99
60) 2-Chlorotoluene	8.951	126	22971	1.01	ppb		99
61) 4-Chlorotoluene	9.055	126	22328	0.99	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	76170	0.87	ppb		99
63) tert-Butylbenzene	9.353	119	59923	0.88	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	73440	0.87	ppb		98
65) sec-Butylbenzene	9.567	105	89955	0.89	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	34360	0.92	ppb		100
67) p-Isopropyltoluene	9.713	119	68086	0.82	ppb		97
68) 1,4-Dichlorobenzene	9.756	146	34860	0.89	ppb		94
69) 1,2-Dichlorobenzene	10.115	146	24567	0.87	ppb		100
70) n-Butylbenzene	10.109	91	63817	0.81	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.883	157	932	0.72	ppb	#	64
72) 1,2,4-Trichlorobenzene	11.706	180	6168	0.46	ppb		90
73) Hexachlorobutadiene	11.883	225	6218	0.47	ppb		97
74) Naphthalene	11.944	128	7514	0.99	ppb	#	94
75) 1,2,3-Trichlorobenzene	12.188	180	3448	0.52	ppb		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	479547	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	741239	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	592815	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	240183	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	223417	10.37	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.70%				
36) Toluene-d8	6.220	98	874445	10.03	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.30%				
54) 4-Bromofluorobenzene	8.622	95	264503	9.74	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	71435	1.89	ppb		100
3) Chloromethane	1.343	50	111552	1.95	ppb		100
4) Vinyl Chloride	1.428	62	94040	2.00	ppb		99
5) Bromomethane	1.690	96	44871	2.05	ppb		99
6) Chloroethane	1.769	64	48789	1.97	ppb		96
7) Trichlorofluoromethane	1.977	101	101236	1.97	ppb		99
8) 1,1-Dichloroethene	2.416	61	107339	1.98	ppb		100
9) Acetone	2.470	43	9060	2.24	ppb		96
10) Iodomethane	2.538	142	60687	2.01	ppb		99
11) Carbon Disulfide	2.592	76	171279	2.00	ppb		97
12) Methylene Chloride	2.824	49	93388	1.98	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	110387	2.06	ppb		100
14) Methyl t-Butyl Ether	3.068	73	70253	2.02	ppb		98
15) 1,1-Dichloroethane	3.409	63	125922	2.02	ppb		98
16) Vinyl Acetate	3.458	43	54537	1.97	ppb		98
17) 2,2-Dichloropropane	3.891	77	80592	1.97	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	114722	1.99	ppb		99
19) 2-Butanone	3.921	43	12367	2.16	ppb		91
20) Bromochloromethane	4.098	130	24764	2.04	ppb		97
21) Chloroform	4.165	83	98372	2.01	ppb		98
22) 1,1,1-Trichloroethane	4.318	97	93941	1.95	ppb	#	1
24) Carbon Tetrachloride	4.458	117	88301	1.97	ppb		100
25) 1,1-Dichloropropene	4.452	75	82043	1.99	ppb		100
26) Benzene	4.629	78	213449	1.99	ppb		100
27) 1,2-Dichloroethane	4.641	62	61512	2.06	ppb		99
29) Trichloroethene	5.171	130	64112	2.02	ppb		93
30) 1,2-Dichloropropane	5.360	63	59895	2.01	ppb		100
31) Dibromomethane	5.464	174	20052	2.08	ppb		99
32) Bromodichloromethane	5.598	83	59547	2.02	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	3284	6.24	ppb		100
34) (cis) 1,3-Dichloropropene	5.982	75	59196	1.90	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	22165	2.05	ppb		98
37) Toluene	6.275	91	232630	1.92	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	40523	1.94	ppb		100
40) 1,1,2-Trichloroethane	6.634	97	23818	1.92	ppb		94
41) Tetrachloroethene	6.768	166	63251	1.94	ppb		98
42) 1,3-Dichloropropane	6.787	76	43185	1.98	ppb		99
43) 2-Hexanone	6.866	43	13779	1.89	ppb		99
44) Dibromochloromethane	6.988	129	31574	1.95	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

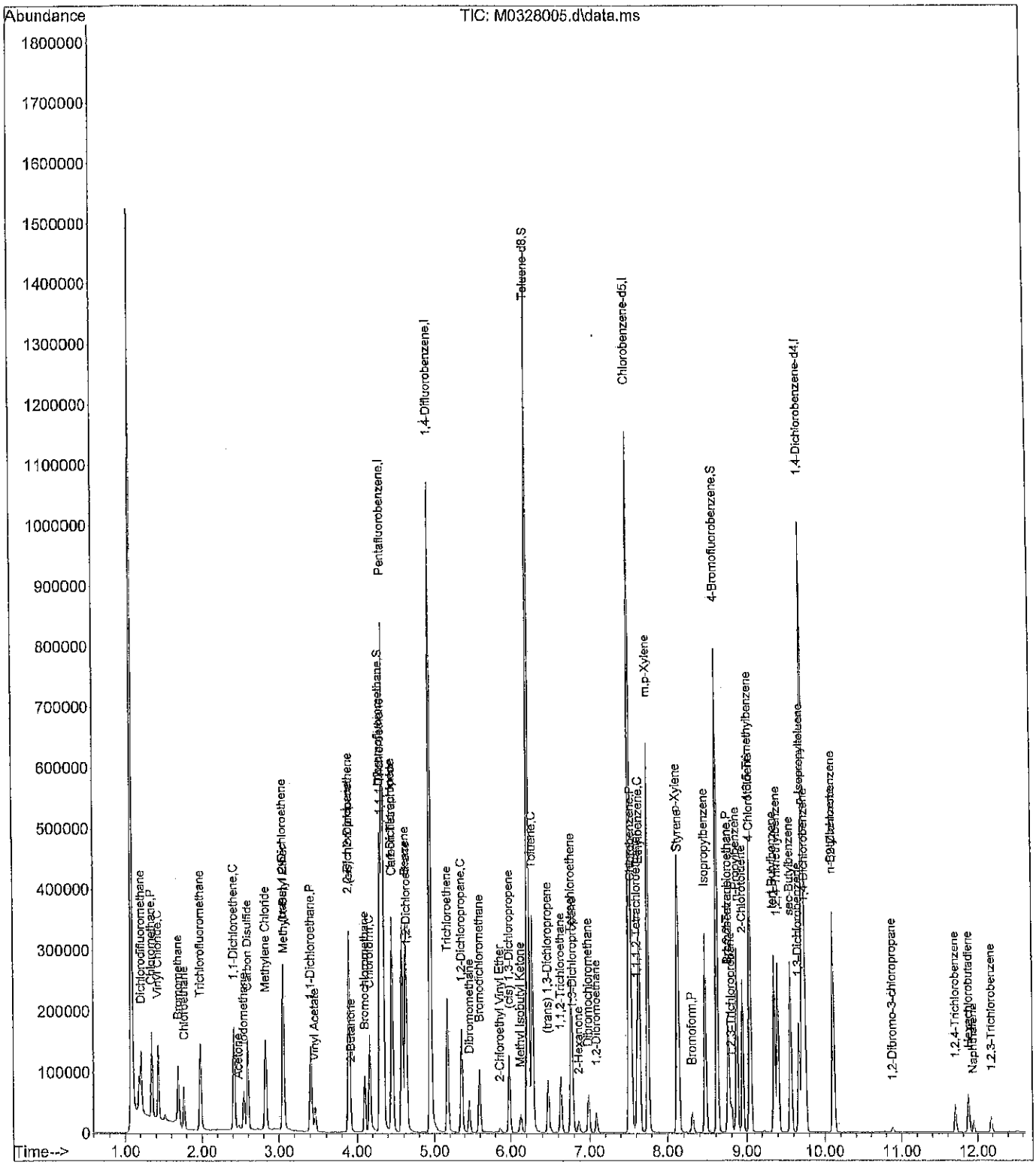
Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	1,2-Dibromoethane	7.092	107	22108	2.07	ppb		94
46)	Chlorobenzene	7.543	112	126905	1.93	ppb		98
47)	1,1,1,2-Tetrachloroethane	7.616	133	40634	1.89	ppb		97
48)	Ethylbenzene	7.646	91	244080	1.84	ppb		99
49)	m,p-Xylene	7.756	91	366249	3.67	ppb		100
50)	o-Xylene	8.128	91	168553	1.82	ppb		99
51)	Styrene	8.140	104	125222	1.84	ppb		100
52)	Bromoform	8.311	173	15623	1.86	ppb		98
53)	Isopropylbenzene	8.475	105	207918	1.79	ppb		99
56)	Bromobenzene	8.762	156	41070	2.02	ppb		98
57)	1,1,2,2-Tetrachloroethane	8.762	83	20399	2.05	ppb		97
58)	1,2,3-Trichloropropane	8.799	75	17704	2.32	ppb	#	100
59)	n-Propylbenzene	8.872	91	236825	1.94	ppb		99
60)	2-Chlorotoluene	8.951	126	46452	1.98	ppb		97
61)	4-Chlorotoluene	9.055	126	46002	1.98	ppb		95
62)	1,3,5-Trimethylbenzene	9.042	105	172160	1.90	ppb		100
63)	tert-Butylbenzene	9.353	119	133577	1.88	ppb		98
64)	1,2,4-Trimethylbenzene	9.402	105	156865	1.80	ppb		98
65)	sec-Butylbenzene	9.567	105	191336	1.83	ppb		100
66)	1,3-Dichlorobenzene	9.670	146	73967	1.92	ppb		96
67)	p-Isopropyltoluene	9.713	119	152932	1.78	ppb		100
68)	1,4-Dichlorobenzene	9.756	146	76190	1.87	ppb		96
69)	1,2-Dichlorobenzene	10.115	146	52952	1.80	ppb		99
70)	n-Butylbenzene	10.109	91	135827	1.67	ppb		98
71)	1,2-Dibromo-3-chloropr...	10.883	157	2368	1.76	ppb		98
72)	1,2,4-Trichlorobenzene	11.706	180	14738	1.05	ppb		94
73)	Hexachlorobutadiene	11.883	225	13288	0.97	ppb		99
74)	Naphthalene	11.944	128	16224	1.48	ppb		97
75)	1,2,3-Trichlorobenzene	12.188	180	8510	1.04	ppb		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	487403	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	747722	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	596122	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	250793	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	226293	10.34	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.40%				
36) Toluene-d8	6.220	98	883353	10.04	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.40%				
54) 4-Bromofluorobenzene	8.616	95	269266	9.86	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	175706	4.58	ppb		100
3) Chloromethane	1.343	50	272665	4.68	ppb		99
4) Vinyl Chloride	1.428	62	233677	4.89	ppb		100
5) Bromomethane	1.684	96	107522	4.84	ppb		99
6) Chloroethane	1.770	64	119788	4.76	ppb		100
7) Trichlorofluoromethane	1.977	101	251859	4.81	ppb		99
8) 1,1-Dichloroethene	2.416	61	271961	4.94	ppb		98
9) Acetone	2.471	43	19243	5.36	ppb		100
10) Iodomethane	2.538	142	171354	4.82	ppb		99
11) Carbon Disulfide	2.593	76	428232	4.92	ppb		100
12) Methylene Chloride	2.824	49	227594	4.76	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	265907	4.87	ppb		98
14) Methyl t-Butyl Ether	3.068	73	176485	4.99	ppb		98
15) 1,1-Dichloroethane	3.409	63	313941	4.94	ppb		98
16) Vinyl Acetate	3.458	43	132036	4.05	ppb		100
17) 2,2-Dichloropropane	3.891	77	198435	4.78	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	289717	4.95	ppb		100
19) 2-Butanone	3.922	43	29280	5.04	ppb		95
20) Bromochloromethane	4.098	130	61061	4.94	ppb		97
21) Chloroform	4.165	83	248538	5.00	ppb		100
22) 1,1,1-Trichloroethane	4.318	97	236699	4.83	ppb	#	48
24) Carbon Tetrachloride	4.458	117	217779	4.78	ppb		99
25) 1,1-Dichloropropene	4.452	75	201088	4.81	ppb		99
26) Benzene	4.629	78	539722	4.94	ppb		100
27) 1,2-Dichloroethane	4.641	62	152728	5.02	ppb		100
29) Trichloroethene	5.171	130	158883	4.97	ppb		97
30) 1,2-Dichloropropane	5.360	63	149194	4.96	ppb		98
31) Dibromomethane	5.464	174	48876	5.02	ppb		96
32) Bromodichloromethane	5.598	83	146557	4.93	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	7478	11.60	ppb	#	90
34) (cis) 1,3-Dichloropropene	5.982	75	153320	4.87	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	53853	4.94	ppb		96
37) Toluene	6.275	91	581598	4.77	ppb		98
39) (trans) 1,3-Dichloropr...	6.470	75	101688	4.84	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	59584	4.77	ppb		96
41) Tetrachloroethene	6.769	166	153550	4.68	ppb		99
42) 1,3-Dichloropropane	6.787	76	109881	5.00	ppb		100
43) 2-Hexanone	6.866	43	36571	4.99	ppb	#	97
44) Dibromochloromethane	6.988	129	80368	4.94	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

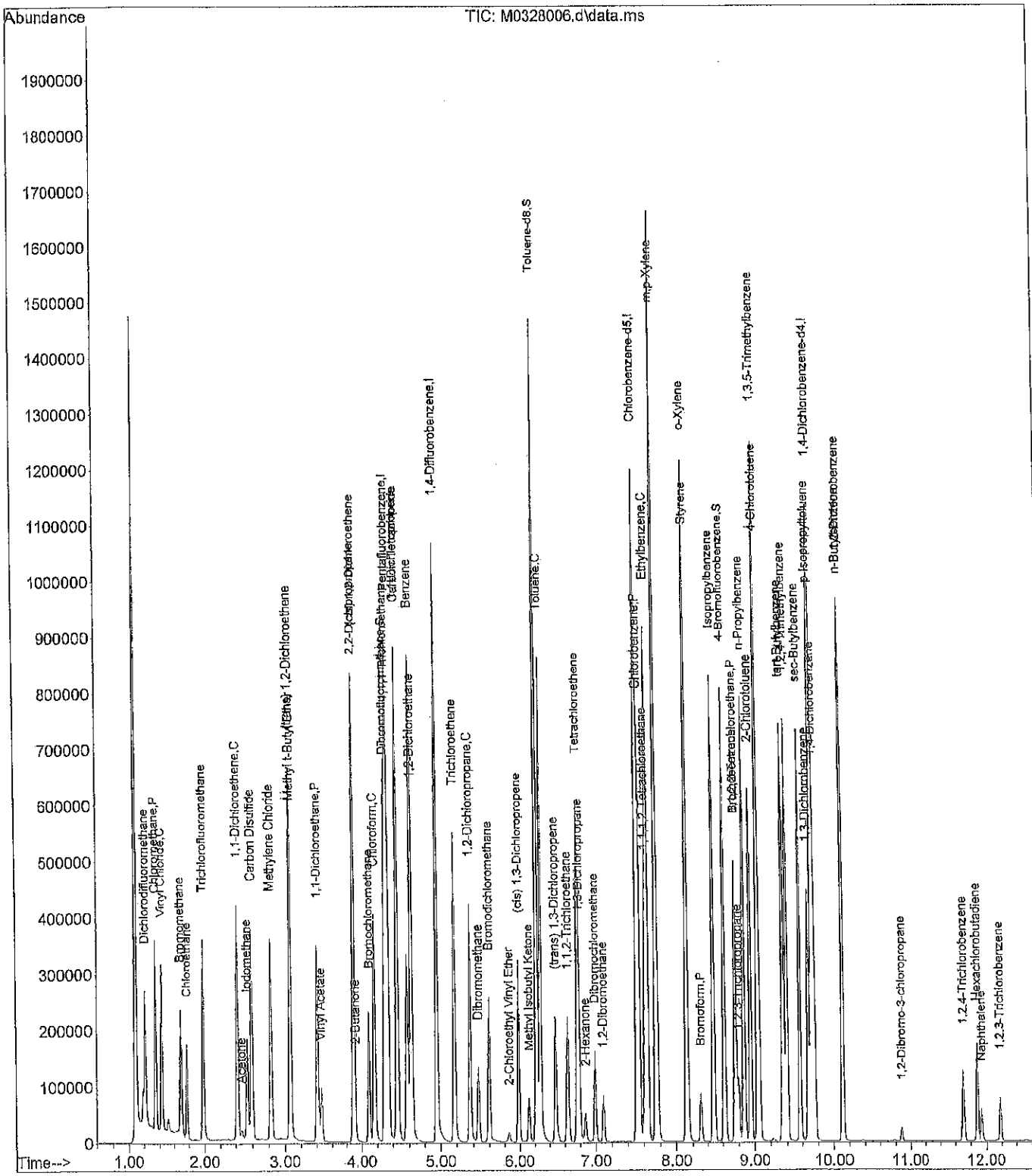
Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	55408	5.15	ppb		94
46) Chlorobenzene	7.543	112	312120	4.72	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	105314	4.86	ppb		100
48) Ethylbenzene	7.646	91	615237	4.61	ppb		100
49) m,p-Xylene	7.756	91	948174	9.45	ppb		100
50) o-Xylene	8.128	91	431278	4.64	ppb		99
51) Styrene	8.140	104	328797	4.81	ppb		100
52) Bromoform	8.311	173	41308	4.89	ppb		97
53) Isopropylbenzene	8.476	105	537723	4.60	ppb		100
56) Bromobenzene	8.762	156	106237	5.00	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	53508	5.15	ppb		95
58) 1,2,3-Trichloropropane	8.799	75	42362	5.32	ppb	#	100
59) n-Propylbenzene	8.872	91	619715	4.86	ppb		99
60) 2-Chlorotoluene	8.951	126	118651	4.84	ppb		99
61) 4-Chlorotoluene	9.055	126	119653	4.92	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	448413	4.74	ppb		99
63) tert-Butylbenzene	9.353	119	348521	4.70	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	423815	4.65	ppb		100
65) sec-Butylbenzene	9.567	105	506584	4.64	ppb		100
66) 1,3-Dichlorobenzene	9.670	146	186299	4.62	ppb		98
67) p-Isopropyltoluene	9.713	119	398736	4.45	ppb		98
68) 1,4-Dichlorobenzene	9.756	146	196227	4.62	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	139284	4.54	ppb		98
70) n-Butylbenzene	10.109	91	366974	4.31	ppb		100
71) 1,2-Dibromo-3-chloropr...	10.884	157	6040	4.30	ppb		92
72) 1,2,4-Trichlorobenzene	11.707	180	40513	2.76	ppb		97
73) Hexachlorobutadiene	11.883	225	36435	2.56	ppb		98
74) Naphthalene	11.944	128	46161	3.10	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	25509	2.71	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	489227	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	759757	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	599575	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246718	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	222542	10.13	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 101.30%				
36) Toluene-d8	6.220	98	893363	10.00	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.00%				
54) 4-Bromofluorobenzene	8.616	95	271986	9.90	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	358326	9.31	ppb		100
3) Chloromethane	1.343	50	555937	9.51	ppb		99
4) Vinyl Chloride	1.428	62	483276	10.07	ppb		100
5) Bromomethane	1.690	96	219911	9.85	ppb		100
6) Chloroethane	1.770	64	247386	9.79	ppb		100
7) Trichlorofluoromethane	1.977	101	523334	9.97	ppb		100
8) 1,1-Dichloroethene	2.416	61	557386	10.08	ppb		99
9) Acetone	2.471	43	34774	10.16	ppb		99
10) Iodomethane	2.538	142	368612	9.85	ppb		99
11) Carbon Disulfide	2.593	76	884927	10.14	ppb		99
12) Methylene Chloride	2.824	49	460832	9.60	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	560950	10.24	ppb		100
14) Methyl t-Butyl Ether	3.068	73	348111	9.80	ppb		99
15) 1,1-Dichloroethane	3.410	63	642292	10.08	ppb		100
16) Vinyl Acetate	3.458	43	253649	7.34	ppb		99
17) 2,2-Dichloropropane	3.897	77	412258	9.89	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	592869	10.09	ppb		99
19) 2-Butanone	3.922	43	56987	9.78	ppb		98
20) Bromochloromethane	4.098	130	125464	10.11	ppb		99
21) Chloroform	4.165	83	500093	10.03	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	488995	9.94	ppb		98
24) Carbon Tetrachloride	4.458	117	448921	9.82	ppb		98
25) 1,1-Dichloropropene	4.452	75	415631	9.89	ppb		99
26) Benzene	4.629	78	1106258	10.09	ppb		99
27) 1,2-Dichloroethane	4.641	62	310436	10.17	ppb		100
29) Trichloroethene	5.171	130	328989	10.12	ppb		99
30) 1,2-Dichloropropane	5.360	63	301712	9.86	ppb		99
31) Dibromomethane	5.464	174	97928	9.89	ppb		99
32) Bromodichloromethane	5.598	83	300904	9.96	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	14914	20.86	ppb	#	88
34) (cis) 1,3-Dichloropropene	5.982	75	316852	9.91	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	105947	9.57	ppb		99
37) Toluene	6.275	91	1190855	9.61	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	217027	10.28	ppb		98
40) 1,1,2-Trichloroethane	6.635	97	120206	9.58	ppb		97
41) Tetrachloroethene	6.769	166	321992	9.76	ppb		99
42) 1,3-Dichloropropane	6.787	76	222149	10.05	ppb		99
43) 2-Hexanone	6.866	43	70181	9.53	ppb		98
44) Dibromochloromethane	6.988	129	163728	10.00	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

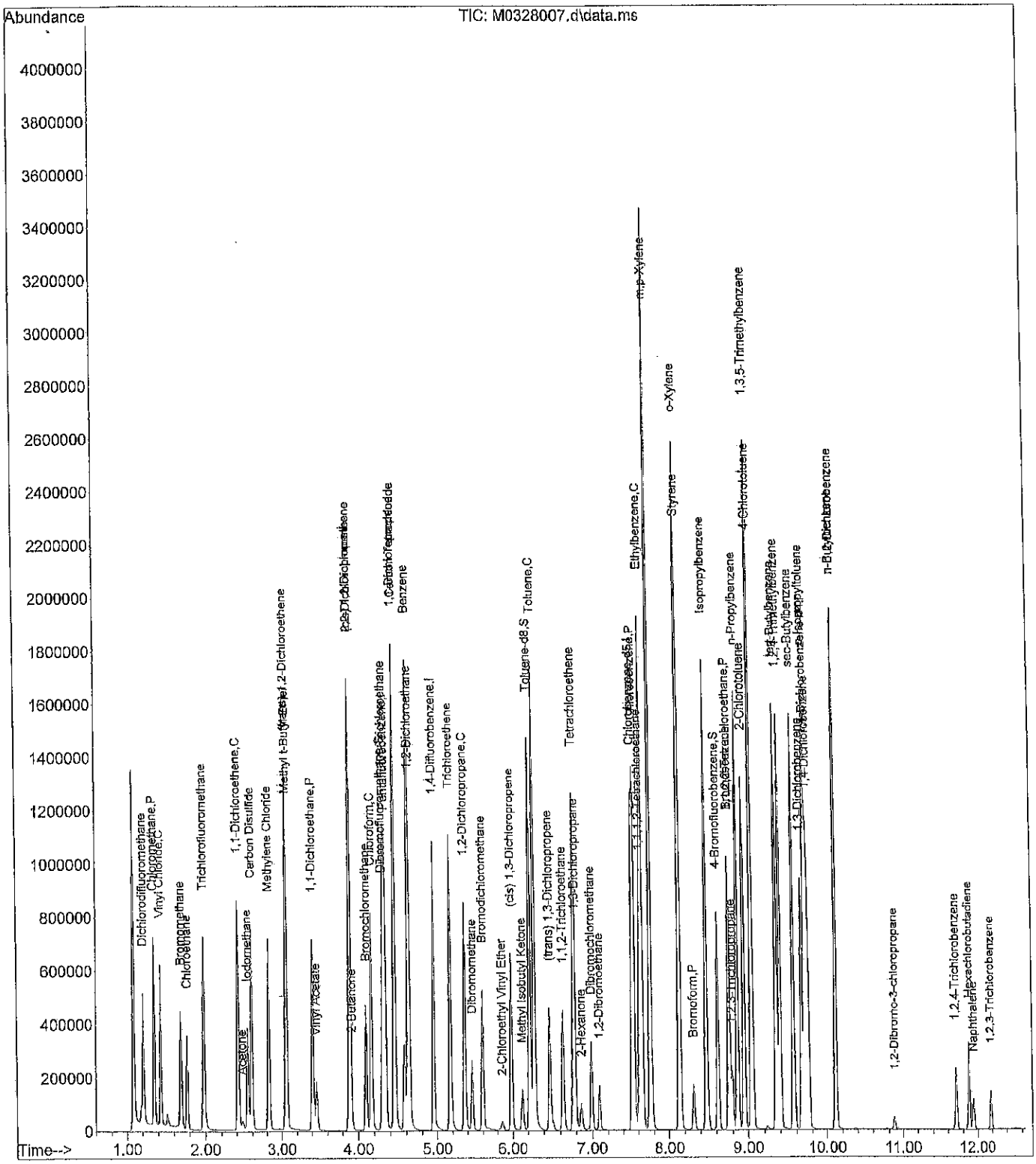
Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	1,2-Dibromoethane	7.092	107	109725	10.14	ppb		97
46)	Chlorobenzene	7.543	112	647533	9.74	ppb		100
47)	1,1,1,2-Tetrachloroethane	7.616	133	217287	9.97	ppb		98
48)	Ethylbenzene	7.646	91	1313400	9.79	ppb		100
49)	m,p-Xylene	7.756	91	1993585	19.75	ppb		99
50)	o-Xylene	8.128	91	903632	9.66	ppb		98
51)	Styrene	8.140	104	688761	10.02	ppb		100
52)	Bromoform	8.311	173	83704	9.85	ppb		97
53)	Isopropylbenzene	8.476	105	1147125	9.75	ppb		100
56)	Bromobenzene	8.762	156	215852	10.33	ppb		98
57)	1,1,2,2-Tetrachloroethane	8.762	83	102118	9.98	ppb		99
58)	1,2,3-Trichloropropane	8.799	75	82731	10.56	ppb	#	100
59)	n-Propylbenzene	8.872	91	1318888	10.52	ppb		99
60)	2-Chlorotoluene	8.951	126	252805	10.48	ppb		98
61)	4-Chlorotoluene	9.055	126	249463	10.43	ppb		100
62)	1,3,5-Trimethylbenzene	9.043	105	956130	10.27	ppb		99
63)	tert-Butylbenzene	9.353	119	765683	10.50	ppb		99
64)	1,2,4-Trimethylbenzene	9.402	105	885124	9.88	ppb		99
65)	sec-Butylbenzene	9.567	105	1090861	10.15	ppb		99
66)	1,3-Dichlorobenzene	9.670	146	380986	9.60	ppb		99
67)	p-Isopropyltoluene	9.713	119	856914	9.72	ppb		99
68)	1,4-Dichlorobenzene	9.756	146	396253	9.49	ppb		99
69)	1,2-Dichlorobenzene	10.116	146	278161	9.21	ppb		99
70)	n-Butylbenzene	10.109	91	770172	9.19	ppb		100
71)	1,2-Dibromo-3-chloropr...	10.884	157	12386	8.97	ppb		87
72)	1,2,4-Trichlorobenzene	11.701	180	77070	5.34	ppb		99
73)	Hexachlorobutadiene	11.883	225	69390	4.95	ppb		98
74)	Naphthalene	11.944	128	90183	5.61	ppb		98
75)	1,2,3-Trichlorobenzene	12.182	180	49016	5.15	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	497601	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	768052	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	607515	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	252975	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	229055	10.25	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.50%				
36) Toluene-d8	6.220	98	909694	10.07	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.70%				
54) 4-Bromofluorobenzene	8.622	95	277129	9.95	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.50%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	1121507	28.64	ppb		99
3) Chloromethane	1.343	50	1561206	26.25	ppb		100
4) Vinyl Chloride	1.428	62	1328160	27.20	ppb		100
5) Bromomethane	1.684	96	581881	25.64	ppb		99
6) Chloroethane	1.770	64	655545	25.52	ppb		99
7) Trichlorofluoromethane	1.977	101	1389716	26.02	ppb		99
8) 1,1-Dichloroethene	2.416	61	1474120	26.22	ppb		99
9) Acetone	2.471	43	87736	26.13	ppb		98
10) Iodomethane	2.538	142	1029759	26.31	ppb		98
11) Carbon Disulfide	2.593	76	2384649	26.86	ppb		99
12) Methylene Chloride	2.824	49	1201171	24.59	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	1480100	26.56	ppb		99
14) Methyl t-Butyl Ether	3.068	73	917317	25.39	ppb		99
15) 1,1-Dichloroethane	3.410	63	1697554	26.18	ppb		99
16) Vinyl Acetate	3.458	43	677905	18.53	ppb		99
17) 2,2-Dichloropropane	3.897	77	1075056	25.36	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	1593641	26.66	ppb		100
19) 2-Butanone	3.922	43	148430	25.04	ppb		98
20) Bromochloromethane	4.098	130	328851	26.05	ppb		99
21) Chloroform	4.165	83	1322341	26.07	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	1293343	25.86	ppb	#	68
24) Carbon Tetrachloride	4.458	117	1213430	26.09	ppb		100
25) 1,1-Dichloropropene	4.452	75	1117703	26.16	ppb		100
26) Benzene	4.629	78	2935857	26.34	ppb		99
27) 1,2-Dichloroethane	4.641	62	810173	26.11	ppb		99
29) Trichloroethene	5.171	130	884095	26.91	ppb		97
30) 1,2-Dichloropropane	5.360	63	807229	26.10	ppb		99
31) Dibromomethane	5.464	174	260025	25.99	ppb		98
32) Bromodichloromethane	5.598	83	801089	26.22	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	43191	56.05	ppb	#	86
34) (cis) 1,3-Dichloropropene	5.982	75	878404	27.19	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	291919	26.08	ppb		98
37) Toluene	6.281	91	3203081	25.57	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	580541	27.13	ppb		98
40) 1,1,2-Trichloroethane	6.634	97	324195	25.49	ppb		96
41) Tetrachloroethene	6.769	166	854911	25.57	ppb		100
42) 1,3-Dichloropropane	6.787	76	586797	26.20	ppb		100
43) 2-Hexanone	6.866	43	200018	26.80	ppb		100
44) Dibromochloromethane	6.988	129	444656	26.79	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

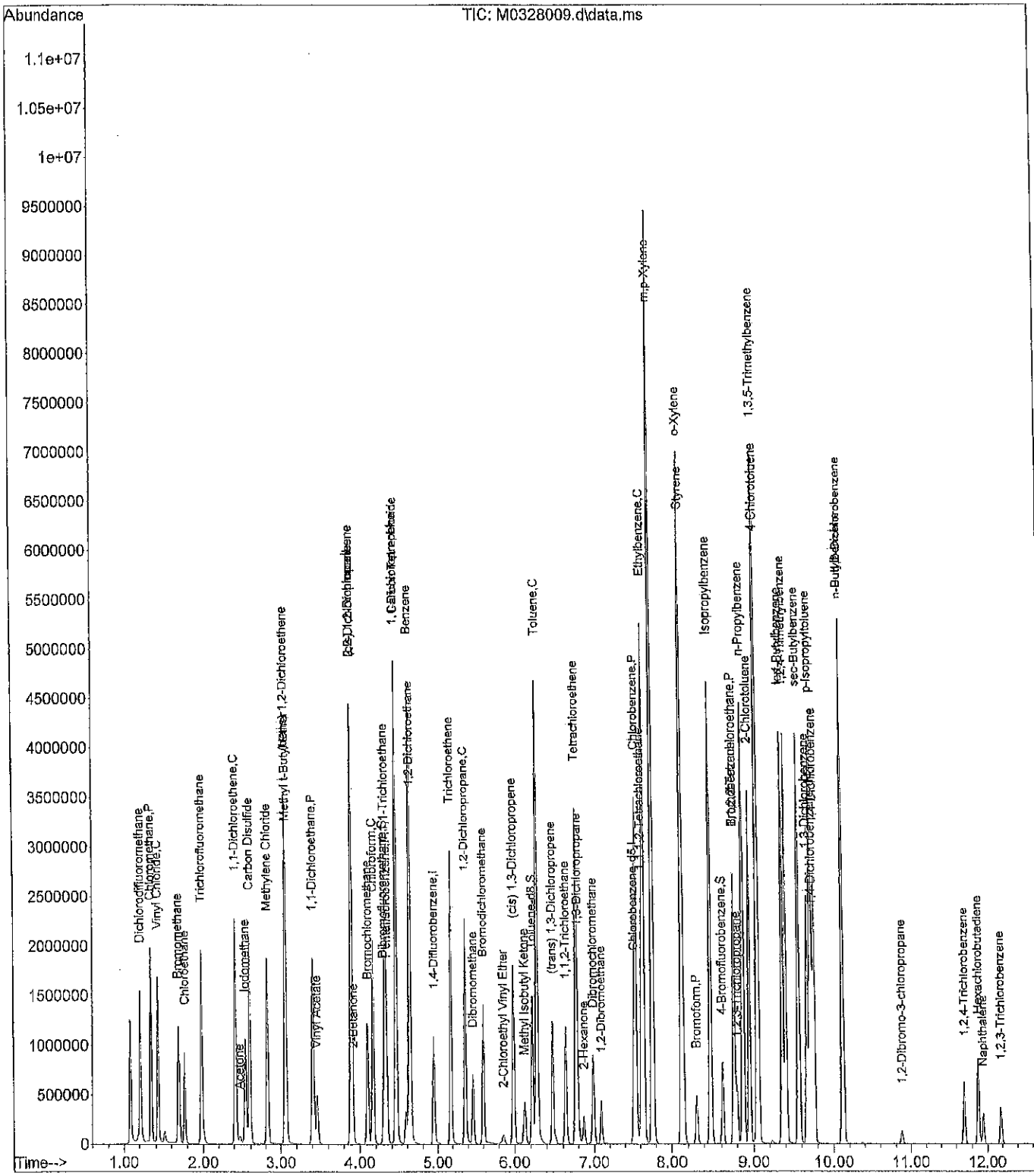
Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	292386	26.66	ppb		99
46) Chlorobenzene	7.543	112	1729622	25.68	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	576009	26.08	ppb		99
48) Ethylbenzene	7.646	91	3585151	26.38	ppb		99
49) m,p-Xylene	7.756	91	5434085	53.13	ppb		99
50) o-Xylene	8.128	91	2466541	26.02	ppb		99
51) Styrene	8.140	104	1887824	27.11	ppb		100
52) Bromoform	8.311	173	232242	26.97	ppb		99
53) Isopropylbenzene	8.476	105	3134059	26.30	ppb		100
56) Bromobenzene	8.762	156	592396	27.65	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	278507	26.56	ppb		97
58) 1,2,3-Trichloropropane	8.799	75	221012	27.51	ppb	#	100
59) n-Propylbenzene	8.872	91	3571653	27.78	ppb		100
60) 2-Chlorotoluene	8.951	126	685447	27.70	ppb		98
61) 4-Chlorotoluene	9.055	126	667612	27.22	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	2605407	27.30	ppb		99
63) tert-Butylbenzene	9.353	119	2039103	27.27	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	2384690	25.96	ppb		100
65) sec-Butylbenzene	9.567	105	2940858	26.70	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	1018598	25.04	ppb		99
67) p-Isopropyltoluene	9.713	119	2342593	25.92	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	1061821	24.81	ppb		99
69) 1,2-Dichlorobenzene	10.116	146	755745	24.41	ppb		100
70) n-Butylbenzene	10.109	91	2095716	24.39	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	35703	25.21	ppb		95
72) 1,2,4-Trichlorobenzene	11.707	180	210257	14.22	ppb		98
73) Hexachlorobutadiene	11.883	225	183636	12.77	ppb		99
74) Naphthalene	11.944	128	250957	14.31	ppb		100
75) 1,2,3-Trichlorobenzene	12.182	180	124247	12.52	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	522687	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	794397	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	648063	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	271326	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	239856	10.22	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.20%				
36) Toluene-d8	6.220	98	954439	10.21	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 102.10%				
54) 4-Bromofluorobenzene	8.622	95	292946	9.86	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	2263976	55.05	ppb		99
3) Chloromethane	1.343	50	3189613	51.05	ppb		100
4) Vinyl Chloride	1.428	62	2726670	53.16	ppb		99
5) Bromomethane	1.690	96	1188547	49.85	ppb		99
6) Chloroethane	1.769	64	1341140	49.70	ppb		99
7) Trichlorofluoromethane	1.977	101	2822826	50.31	ppb		100
8) 1,1-Dichloroethene	2.416	61	3002296	50.83	ppb		98
9) Acetone	2.477	43	169002	48.45	ppb		98
10) Iodomethane	2.538	142	2055765	49.63	ppb		97
11) Carbon Disulfide	2.592	76	4931028	52.87	ppb		100
12) Methylene Chloride	2.824	49	2461328	47.97	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	3034587	51.85	ppb		99
14) Methyl t-Butyl Ether	3.068	73	1954424	51.50	ppb		99
15) 1,1-Dichloroethane	3.409	63	3499793	51.39	ppb		99
16) Vinyl Acetate	3.464	43	1988880	50.94	ppb		99
17) 2,2-Dichloropropane	3.897	77	2173704	48.82	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	3306469	52.65	ppb		100
19) 2-Butanone	3.921	43	294527	47.30	ppb		98
20) Bromochloromethane	4.098	130	687090	51.81	ppb		98
21) Chloroform	4.165	83	2720414	51.07	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	2654495	50.52	ppb	#	58
24) Carbon Tetrachloride	4.458	117	2489450	50.96	ppb		100
25) 1,1-Dichloropropene	4.458	75	2319305	51.68	ppb		99
26) Benzene	4.629	78	6103832	52.13	ppb		98
27) 1,2-Dichloroethane	4.641	62	1656157	50.81	ppb		99
29) Trichloroethene	5.171	130	1726990	50.82	ppb		99
30) 1,2-Dichloropropane	5.360	63	1670462	52.23	ppb		99
31) Dibromomethane	5.464	174	532261	51.43	ppb		98
32) Bromodichloromethane	5.598	83	1679673	53.15	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	102169	125.64	ppb	#	89
34) (cis) 1,3-Dichloropropene	5.982	75	1826617	54.67	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	644949	55.71	ppb		98
37) Toluene	6.281	91	6709086	51.79	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	1239067	54.28	ppb		98
40) 1,1,2-Trichloroethane	6.634	97	674955	49.75	ppb		97
41) Tetrachloroethene	6.768	166	1764560	49.48	ppb		99
42) 1,3-Dichloropropane	6.787	76	1220959	51.11	ppb		99
43) 2-Hexanone	6.866	43	420528	52.83	ppb		98
44) Dibromochloromethane	6.988	129	950233	53.68	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

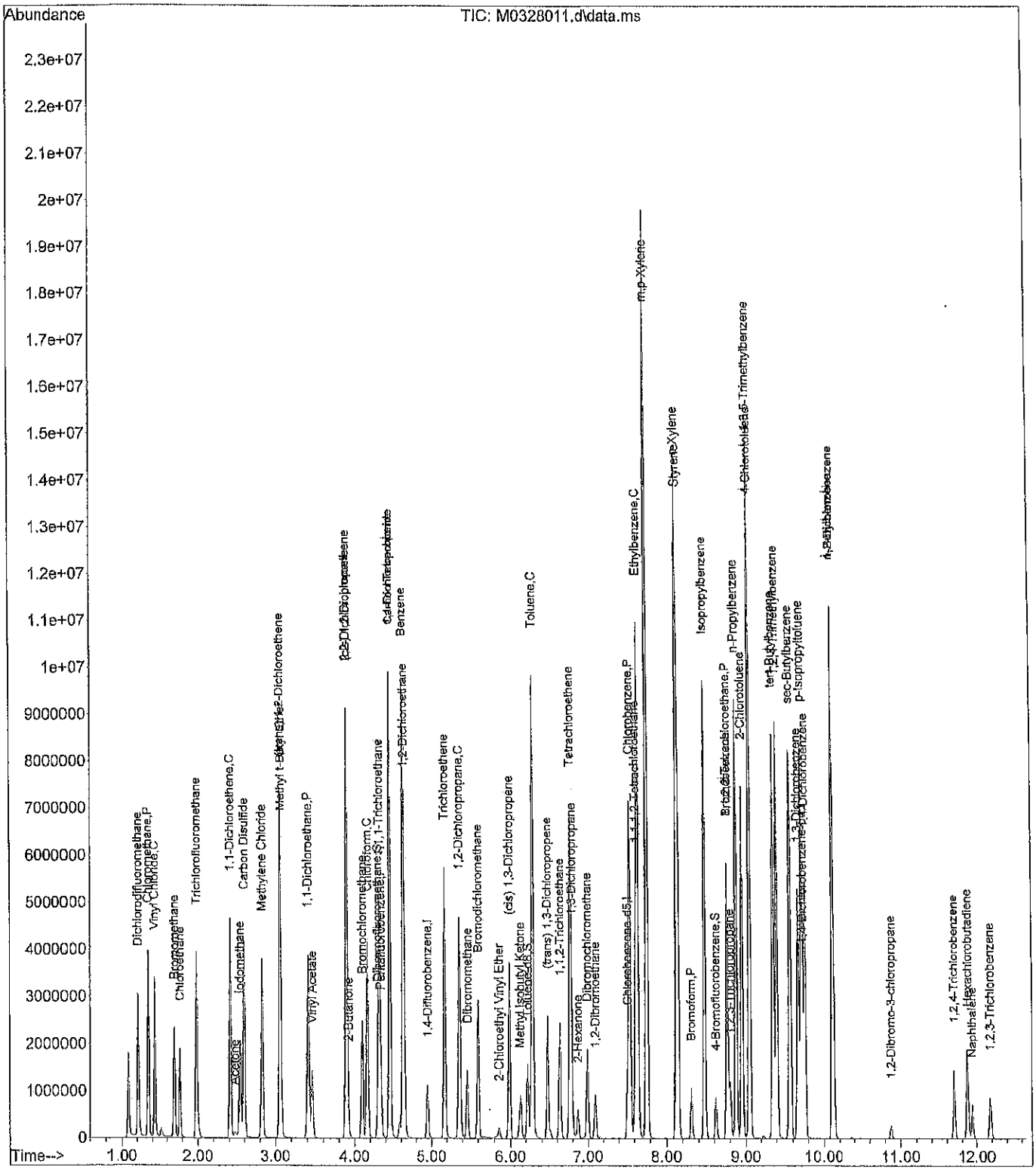
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	1,2-Dibromoethane	7.092	107	599789	51.27	ppb		100
46)	Chlorobenzene	7.543	112	3639368	50.66	ppb		99
47)	1,1,1,2-Tetrachloroethane	7.622	133	1226756	52.08	ppb		99
48)	Ethylbenzene	7.646	91	7483755	51.62	ppb		99
49)	m,p-Xylene	7.756	91	11469508	105.12	ppb		99
50)	o-Xylene	8.128	91	5194099	51.37	ppb		99
51)	Styrene	8.140	104	4005725	53.92	ppb		100
52)	Bromoform	8.311	173	511778	55.72	ppb		97
53)	Isopropylbenzene	8.475	105	6542524	51.46	ppb		100
56)	Bromobenzene	8.762	156	1232656	53.64	ppb		100
57)	1,1,2,2-Tetrachloroethane	8.762	83	621739	55.28	ppb		98
58)	1,2,3-Trichloropropane	8.799	75	462707	53.70	ppb	#	100
59)	n-Propylbenzene	8.872	91	7452772	54.05	ppb		99
60)	2-Chlorotoluene	8.951	126	1400536	52.77	ppb		98
61)	4-Chlorotoluene	9.055	126	1411549	53.66	ppb		100
62)	1,3,5-Trimethylbenzene	9.042	105	5458502	53.32	ppb		100
63)	tert-Butylbenzene	9.353	119	4243887	52.91	ppb		100
64)	1,2,4-Trimethylbenzene	9.402	105	5034056	51.09	ppb		100
65)	sec-Butylbenzene	9.567	105	6127669	51.87	ppb		99
66)	1,3-Dichlorobenzene	9.670	146	2161176	49.54	ppb		99
67)	p-Isopropyltoluene	9.713	119	4907139	50.62	ppb		100
68)	1,4-Dichlorobenzene	9.756	146	2245473	48.92	ppb		98
69)	1,2-Dichlorobenzene	10.115	146	1619215	48.77	ppb		100
70)	n-Butylbenzene	10.115	91	4472832	48.54	ppb		99
71)	1,2-Dibromo-3-chloropr...	10.883	157	75602	49.77	ppb		94
72)	1,2,4-Trichlorobenzene	11.700	180	482632	30.43	ppb		99
73)	Hexachlorobutadiene	11.883	225	393787	25.53	ppb		98
74)	Naphthalene	11.944	128	596197	31.03	ppb		99
75)	1,2,3-Trichlorobenzene	12.182	180	286773	26.78	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	510461	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	773794	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	619866	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	260824	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	233640	10.05	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.50%			
36) Toluene-d8	6.220	98	922244	10.11	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 101.10%			
54) 4-Bromofluorobenzene	8.622	95	278743	10.13	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 101.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	329413	8.41	ppb	100
3) Chloromethane	1.343	50	597280	9.87	ppb	100
4) Vinyl Chloride	1.428	62	501584	9.84	ppb	100
5) Bromomethane	1.690	96	230195	9.50	ppb	98
6) Chloroethane	1.769	64	257346	9.62	ppb	99
7) Trichlorofluoromethane	1.977	101	559983	10.20	ppb	99
8) 1,1-Dichloroethene	2.416	61	639672	10.90	ppb	100
9) Acetone	2.483	43	36530	10.23	ppb	99
10) Iodomethane	2.538	142	373007	9.48	ppb	99
11) Carbon Disulfide	2.592	76	935588	10.03	ppb	100
12) Methylene Chloride	2.824	49	504778	10.00	ppb	99
13) (trans) 1,2-Dichloroet...	3.056	61	595161	10.07	ppb	99
14) Methyl t-Butyl Ether	3.068	73	395430	10.62	ppb	100
15) 1,1-Dichloroethane	3.409	63	704461	10.46	ppb	99
16) Vinyl Acetate	3.464	43	172935	6.08	ppb	100
17) 2,2-Dichloropropane	3.897	77	408962	9.51	ppb	100
18) (cis) 1,2-Dichloroethene	3.897	61	638476	10.27	ppb	100
19) 2-Butanone	3.921	43	58497	9.47	ppb	98
20) Bromochloromethane	4.098	130	139022	10.67	ppb	98
21) Chloroform	4.165	83	549665	10.33	ppb	99
22) 1,1,1-Trichloroethane	4.318	97	536813	10.46	ppb	95
24) Carbon Tetrachloride	4.458	117	499537	10.42	ppb	97
25) 1,1-Dichloropropene	4.452	75	448750	10.09	ppb	99
26) Benzene	4.629	78	1210361	10.35	ppb	100
27) 1,2-Dichloroethane	4.641	62	336423	10.39	ppb	99
29) Trichloroethene	5.171	130	378291	11.08	ppb	99
30) 1,2-Dichloropropane	5.360	63	326363	10.48	ppb	99
31) Dibromomethane	5.464	174	111837	11.18	ppb	99
32) Bromodichloromethane	5.598	83	338886	10.94	ppb	98
33) 2-Chloroethyl Vinyl Ether	5.860	63	15917	9.55	ppb	99
34) (cis) 1,3-Dichloropropene	5.982	75	343393	10.79	ppb	99
35) Methyl Isobutyl Ketone	6.122	43	110853	9.73	ppb	98
37) Toluene	6.281	91	1303383	10.35	ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	231090	10.59	ppb	100
40) 1,1,2-Trichloroethane	6.634	97	131800	10.05	ppb	99
41) Tetrachloroethene	6.769	166	351520	10.39	ppb	99
42) 1,3-Dichloropropane	6.787	76	240647	10.55	ppb	99
43) 2-Hexanone	6.866	43	73055	9.33	ppb	100
44) Dibromochloromethane	6.988	129	187880	11.08	ppb	98

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration

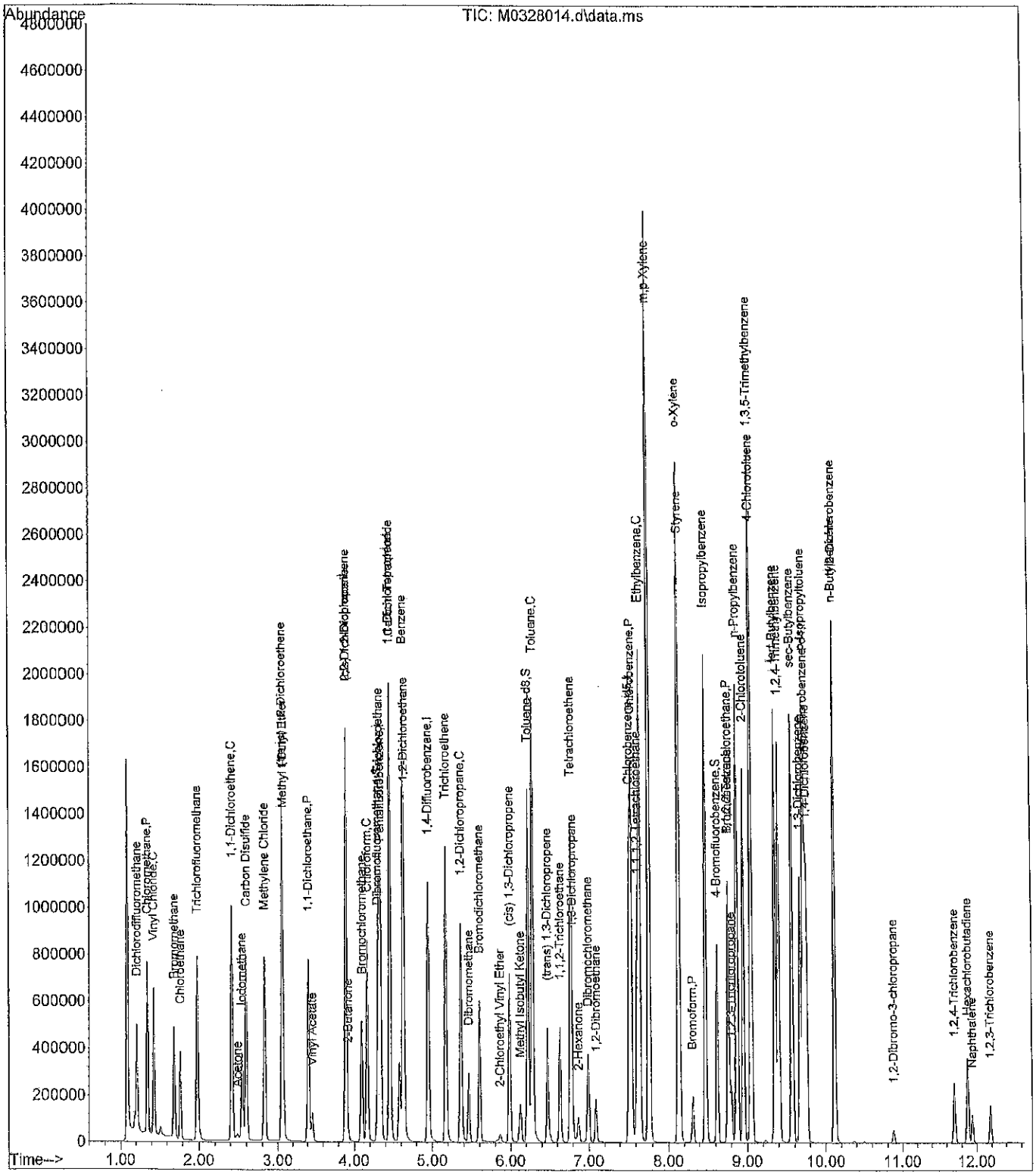
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	1,2-Dibromoethane	7.092	107	121746	10.62	ppb		99
46)	Chlorobenzene	7.543	112	777358	11.26	ppb		99
47)	1,1,1,2-Tetrachloroethane	7.616	133	235590	10.59	ppb		99
48)	Ethylbenzene	7.646	91	1429843	10.55	ppb		100
49)	m,p-Xylene	7.756	91	2249857	22.19	ppb		99
50)	o-Xylene	8.128	91	1087120	11.73	ppb		100
51)	Styrene	8.140	104	755347	10.94	ppb		100
52)	Bromoform	8.311	173	92427	10.74	ppb		98
53)	Isopropylbenzene	8.475	105	1357068	11.74	ppb		99
56)	Bromobenzene	8.762	156	244612	10.36	ppb		97
57)	1,1,2,2-Tetrachloroethane	8.762	83	109511	9.58	ppb		96
58)	1,2,3-Trichloropropane	8.799	75	94450	10.47	ppb	#	100
59)	n-Propylbenzene	8.872	91	1568963	11.28	ppb		99
60)	2-Chlorotoluene	8.951	126	303671	11.33	ppb		100
61)	4-Chlorotoluene	9.055	126	300275	11.41	ppb		99
62)	1,3,5-Trimethylbenzene	9.042	105	1039946	10.55	ppb		99
63)	tert-Butylbenzene	9.353	119	902330	11.62	ppb		99
64)	1,2,4-Trimethylbenzene	9.402	105	957567	10.48	ppb		99
65)	sec-Butylbenzene	9.567	105	1290528	11.52	ppb		99
66)	1,3-Dichlorobenzene	9.670	146	459444	11.27	ppb		99
67)	p-Isopropyltoluene	9.713	119	1006766	11.42	ppb		99
68)	1,4-Dichlorobenzene	9.756	146	433737	10.18	ppb		100
69)	1,2-Dichlorobenzene	10.115	146	343625	11.62	ppb		98
70)	n-Butylbenzene	10.109	91	840590	10.44	ppb		99
71)	1,2-Dibromo-3-chloropr...	10.884	157	14660	11.24	ppb		97
72)	1,2,4-Trichlorobenzene	11.707	180	86555	10.60	ppb		98
73)	Hexachlorobutadiene	11.883	225	75185	9.84	ppb		98
74)	Naphthalene	11.944	128	98546	10.16	ppb		99
75)	1,2,3-Trichlorobenzene	12.182	180	52321	9.87	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424007.d
Acq On : 24 Apr 2014 10:17 am
Operator :
Sample : CCV0424W3
Misc : V3-125-14
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 24 10:30:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	10.000	10.000	0.0	114	0.00
2		Dichlorodifluoromethane	10.000	7.702	23.0#	92	0.00
3	P	Chloromethane	10.000	8.048	19.5	95	0.00
4	C	Vinyl Chloride	10.000	8.650	13.5#	99	0.00
5		Bromomethane	10.000	8.703	13.0	104	0.00
6		Chloroethane	10.000	8.379	16.2	99	0.00
7		Trichlorofluoromethane	10.000	9.007	9.9	103	0.00
8	C	1,1-Dichloroethene	10.000	9.205	7.9#	105	0.00
9		Acetone	10.000	8.678	13.2	98	0.01
10		Iodomethane	10.000	9.532	4.7	111	0.00
11		Carbon Disulfide	10.000	9.644	3.6	111	0.00
12		Methylene Chloride	10.000	8.993	10.1	107	0.00
13		(trans) 1,2-Dichloroethene	10.000	9.179	8.2	105	0.00
14		Methyl t-Butyl Ether	10.000	8.736	12.6	102	0.00
15	P	1,1-Dichloroethane	10.000	9.023	9.8	103	0.00
16		Vinyl Acetate	10.000	11.171	-11.7	136	0.00
17		2,2-Dichloropropane	10.000	8.785	12.1	100	0.00
18		(cis) 1,2-Dichloroethene	10.000	8.922	10.8	102	0.00
19		2-Butanone	10.000	8.855	11.4	104	0.00
20		Bromochloromethane	10.000	9.693	3.1	110	0.00
21	C	Chloroform	10.000	8.660	13.4#	100	0.00
22		1,1,1-Trichloroethane	10.000	8.520	14.8	97	0.00
23	S	Dibromofluoromethane	10.000	7.996	20.0#	91	0.00
24		Carbon Tetrachloride	10.000	8.745	12.6	102	0.00
25		1,1-Dichloropropene	10.000	8.692	13.1	101	0.00
26		Benzene	10.000	9.053	9.5	104	0.00
27		1,2-Dichloroethane	10.000	8.296	17.0	94	0.00
28	I	1,4-Difluorobenzene	10.000	10.000	0.0	105	0.00
29		Trichloroethene	10.000	10.084	-0.8	108	0.00
30	C	1,2-Dichloropropane	10.000	9.888	1.1#	106	0.00
31		Dibromomethane	10.000	10.668	-6.7	113	0.00
32		Bromodichloromethane	10.000	9.494	5.1	101	0.00
33		2-Chloroethyl Vinyl Ether	10.000	1.768	82.3#	20	0.00
34		(cis) 1,3-Dichloropropene	10.000	9.688	3.1	101	0.00
35		Methyl Isobutyl Ketone	10.000	9.263	7.4	103	0.00
36	S	Toluene-d8	10.000	9.592	4.1	101	0.00
37	C	Toluene	10.000	9.637	3.6#	105	0.00
38	I	Chlorobenzene-d5	10.000	10.000	0.0	103	0.00
39		(trans) 1,3-Dichloropropene	10.000	9.841	1.6	98	0.00
40		1,1,2-Trichloroethane	10.000	9.924	0.8	108	0.00
41		Tetrachloroethene	10.000	10.789	-7.9	112	0.00
42		1,3-Dichloropropane	10.000	10.029	-0.3	102	0.00
43		2-Hexanone	10.000	9.068	9.3	100	0.00
44		Dibromochloromethane	10.000	10.402	-4.0	107	0.00
45		1,2-Dibromoethane	10.000	10.433	-4.3	108	0.00
46	P	Chlorobenzene	10.000	10.244	-2.4	108	0.00
47		1,1,1,2-Tetrachloroethane	10.000	10.368	-3.7	105	0.00
48	C	Ethylbenzene	10.000	10.218	-2.2#	105	0.00

Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424007.d
Acq On : 24 Apr 2014 10:17 am
Operator :
Sample : CCV0424W3
Misc : V3-125-14
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 24 10:30:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49		m,p-Xylene	20.000	20.345	-1.7	103	0.00
50		o-Xylene	10.000	10.247	-2.5	104	0.00
51		Styrene	10.000	10.675	-6.8	106	0.00
52	P	Bromoform	10.000	10.805	-8.0	110	0.00
53		Isopropylbenzene	10.000	10.449	-4.5	105	0.00
54	S	4-Bromofluorobenzene	10.000	9.868	1.3	99	0.00
55	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	106	0.00
56		Bromobenzene	10.000	10.346	-3.5	113	0.00
57	P	1,1,2,2-Tetrachloroethane	10.000	9.662	3.4	108	0.00
58		1,2,3-Trichloropropane	10.000	9.169	8.3	100	0.00
59		n-Propylbenzene	10.000	9.786	2.1	103	0.00
60		2-Chlorotoluene	10.000	10.359	-3.6	110	0.00
61		4-Chlorotoluene	10.000	10.290	-2.9	109	0.00
62		1,3,5-Trimethylbenzene	10.000	10.441	-4.4	108	0.00
63		tert-Butylbenzene	10.000	10.321	-3.2	105	0.00
64		1,2,4-Trimethylbenzene	10.000	10.533	-5.3	109	0.00
65		sec-Butylbenzene	10.000	10.362	-3.6	106	0.00
66		1,3-Dichlorobenzene	10.000	10.745	-7.4	115	0.00
67		p-Isopropyltoluene	10.000	10.714	-7.1	110	0.00
68		1,4-Dichlorobenzene	10.000	10.650	-6.5	115	0.00
69		1,2-Dichlorobenzene	10.000	10.895	-8.9	116	0.00
70		n-Butylbenzene	10.000	10.344	-3.4	108	0.00
71		1,2-Dibromo-3-chloropropane	10.000	11.557	-15.6	122	0.00
72		1,2,4-Trichlorobenzene	10.000	12.480	-24.8#	132	0.00
73		Hexachlorobutadiene	10.000	13.849	-38.5#	153	0.00
74		Naphthalene	10.000	10.704	-7.0	115	0.00
75		1,2,3-Trichlorobenzene	10.000	11.069	-10.7	120	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424007.d
Acq On : 24 Apr 2014 10:17 am
Operator :
Sample : CCV0424W3
Misc : V3-125-14
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 24 10:30:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	555321	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	799812	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	615337	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	260827	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	202214	8.00	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.00%				
36) Toluene-d8	6.220	98	904062	9.59	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.90%				
54) 4-Bromofluorobenzene	8.616	95	269558	9.87	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.70%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	328177	7.70	ppb		99
3) Chloromethane	1.343	50	529980	8.05	ppb		99
4) Vinyl Chloride	1.428	62	479846	8.65	ppb		100
5) Bromomethane	1.690	96	229407	8.70	ppb		99
6) Chloroethane	1.769	64	243745	8.38	ppb		99
7) Trichlorofluoromethane	1.977	101	538108	9.01	ppb		99
8) 1,1-Dichloroethene	2.416	61	587650	9.20	ppb		100
9) Acetone	2.483	43	34058	8.68	ppb		99
10) Iodomethane	2.538	142	408135	9.53	ppb		94
11) Carbon Disulfide	2.592	76	979012	9.64	ppb		100
12) Methylene Chloride	2.824	49	493955	8.99	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	589995	9.18	ppb		100
14) Methyl t-Butyl Ether	3.068	73	353722	8.74	ppb		97
15) 1,1-Dichloroethane	3.409	63	661069	9.02	ppb		100
16) Vinyl Acetate	3.464	43	345929	11.17	ppb		99
17) 2,2-Dichloropropane	3.897	77	410930	8.79	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	603613	8.92	ppb		100
19) 2-Butanone	3.921	43	59523	8.86	ppb		95
20) Bromochloromethane	4.098	130	137410	9.69	ppb		95
21) Chloroform	4.165	83	501371	8.66	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	475603	8.52	ppb		98
24) Carbon Tetrachloride	4.458	117	456077	8.74	ppb		97
25) 1,1-Dichloropropene	4.452	75	420608	8.69	ppb		99
26) Benzene	4.629	78	1151743	9.05	ppb		99
27) 1,2-Dichloroethane	4.641	62	292297	8.30	ppb		100
29) Trichloroethene	5.171	130	355740	10.08	ppb		98
30) 1,2-Dichloropropane	5.360	63	318329	9.89	ppb		100
31) Dibromomethane	5.464	174	110289	10.67	ppb		97
32) Bromodichloromethane	5.598	83	303934	9.49	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.866	63	3044	1.77	ppb	#	58
34) (cis) 1,3-Dichloropropene	5.982	75	318747	9.69	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	109071	9.26	ppb		97
37) Toluene	6.281	91	1254439	9.64	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	213180	9.84	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	129260	9.92	ppb		100
41) Tetrachloroethene	6.768	166	362183	10.79	ppb		99
42) 1,3-Dichloropropane	6.787	76	227011	10.03	ppb		100
43) 2-Hexanone	6.866	43	70468	9.07	ppb		99
44) Dibromochloromethane	6.988	129	175014	10.40	ppb		100

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424007.d
Acq On : 24 Apr 2014 10:17 am
Operator :
Sample : CCV0424W3
Misc : V3-125-14
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 24 10:30:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

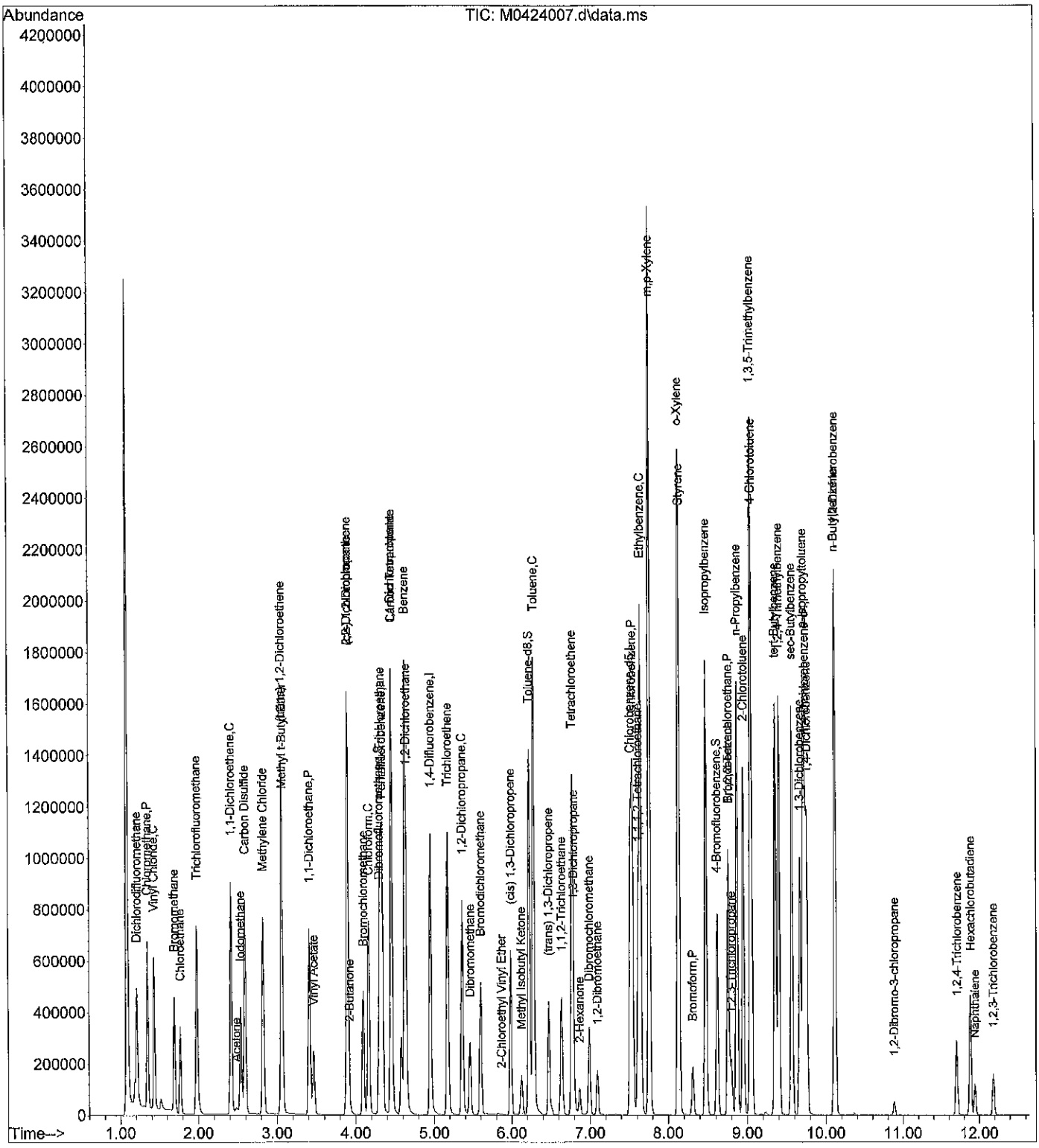
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	118780	10.43	ppb		99
46) Chlorobenzene	7.543	112	701852	10.24	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	228885	10.37	ppb		99
48) Ethylbenzene	7.646	91	1374774	10.22	ppb		98
49) m,p-Xylene	7.756	91	2047967	20.34	ppb		97
50) o-Xylene	8.128	91	942429	10.25	ppb		98
51) Styrene	8.140	104	731927	10.68	ppb		100
52) Bromoform	8.311	173	92315	10.81	ppb		98
53) Isopropylbenzene	8.475	105	1199407	10.45	ppb		99
56) Bromobenzene	8.762	156	244170	10.35	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	110443	9.66	ppb		97
58) 1,2,3-Trichloropropane	8.799	75	82722	9.17	ppb	#	100
59) n-Propylbenzene	8.872	91	1361620	9.79	ppb		99
60) 2-Chlorotoluene	8.951	126	277723	10.36	ppb		99
61) 4-Chlorotoluene	9.055	126	270767	10.29	ppb		98
62) 1,3,5-Trimethylbenzene	9.042	105	1028838	10.44	ppb		97
63) tert-Butylbenzene	9.353	119	801307	10.32	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	962019	10.53	ppb		97
65) sec-Butylbenzene	9.567	105	1160407	10.36	ppb		98
66) 1,3-Dichlorobenzene	9.670	146	438037	10.75	ppb		99
67) p-Isopropyltoluene	9.713	119	944872	10.71	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	453934	10.65	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	322215	10.90	ppb		98
70) n-Butylbenzene	10.109	91	832687	10.34	ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	15077	11.56	ppb		93
72) 1,2,4-Trichlorobenzene	11.707	180	101892	12.48	ppb		99
73) Hexachlorobutadiene	11.883	225	105832	13.85	ppb		99
74) Naphthalene	11.944	128	103866	10.70	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	58779	11.07	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424007.d
Acq On : 24 Apr 2014 10:17 am
Operator :
Sample : CCV0424W3
Misc : V3-125-14
ALS Vial : 7 Sample Multiplier: 1

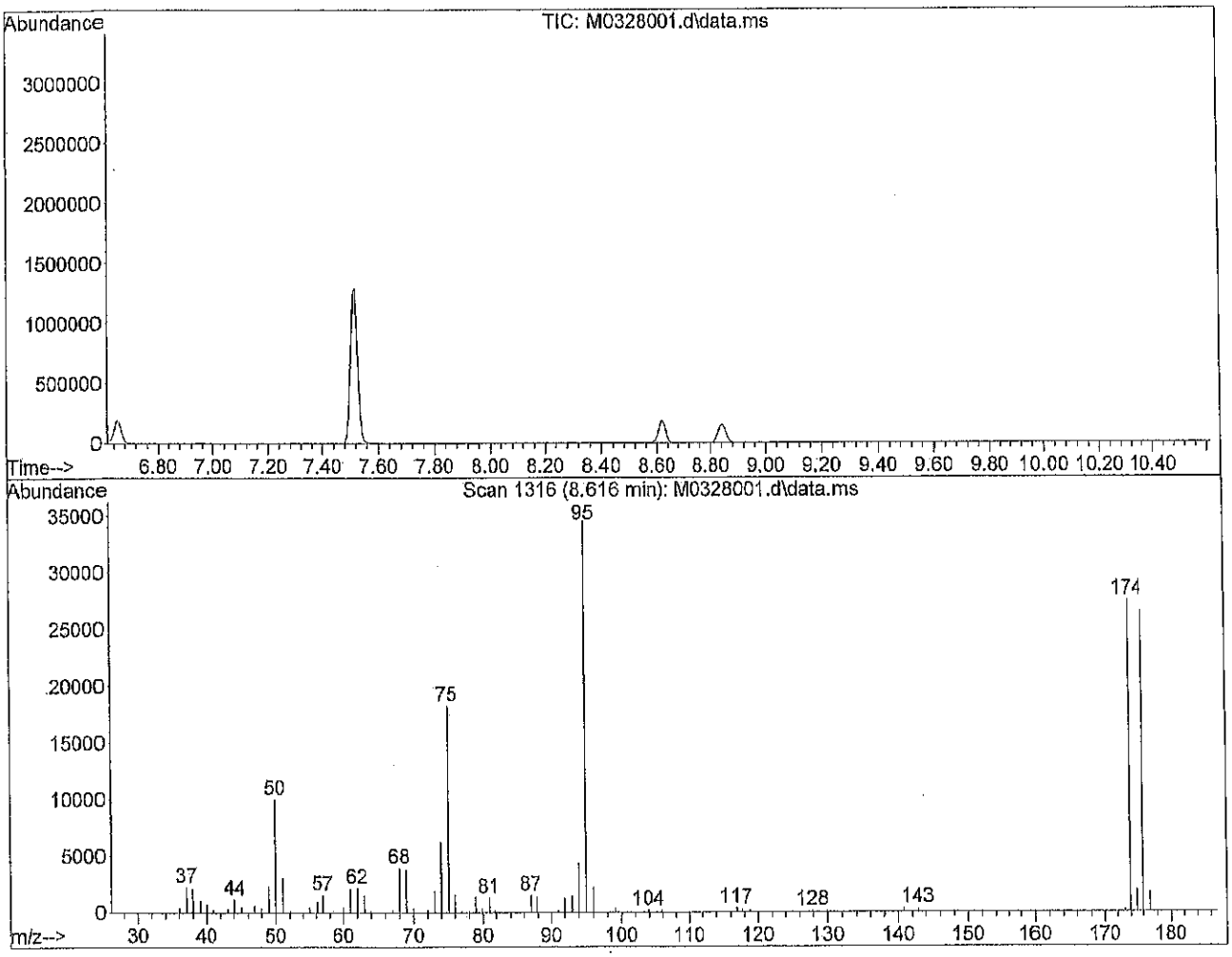
Quant Time: Apr 24 10:30:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\M140328\Snapshot\
Data File : M0328001.d
Acq On : 28 Mar 2014 6:54 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140324W.M
Title :
Last Update : Mon Mar 24 11:06:36 2014



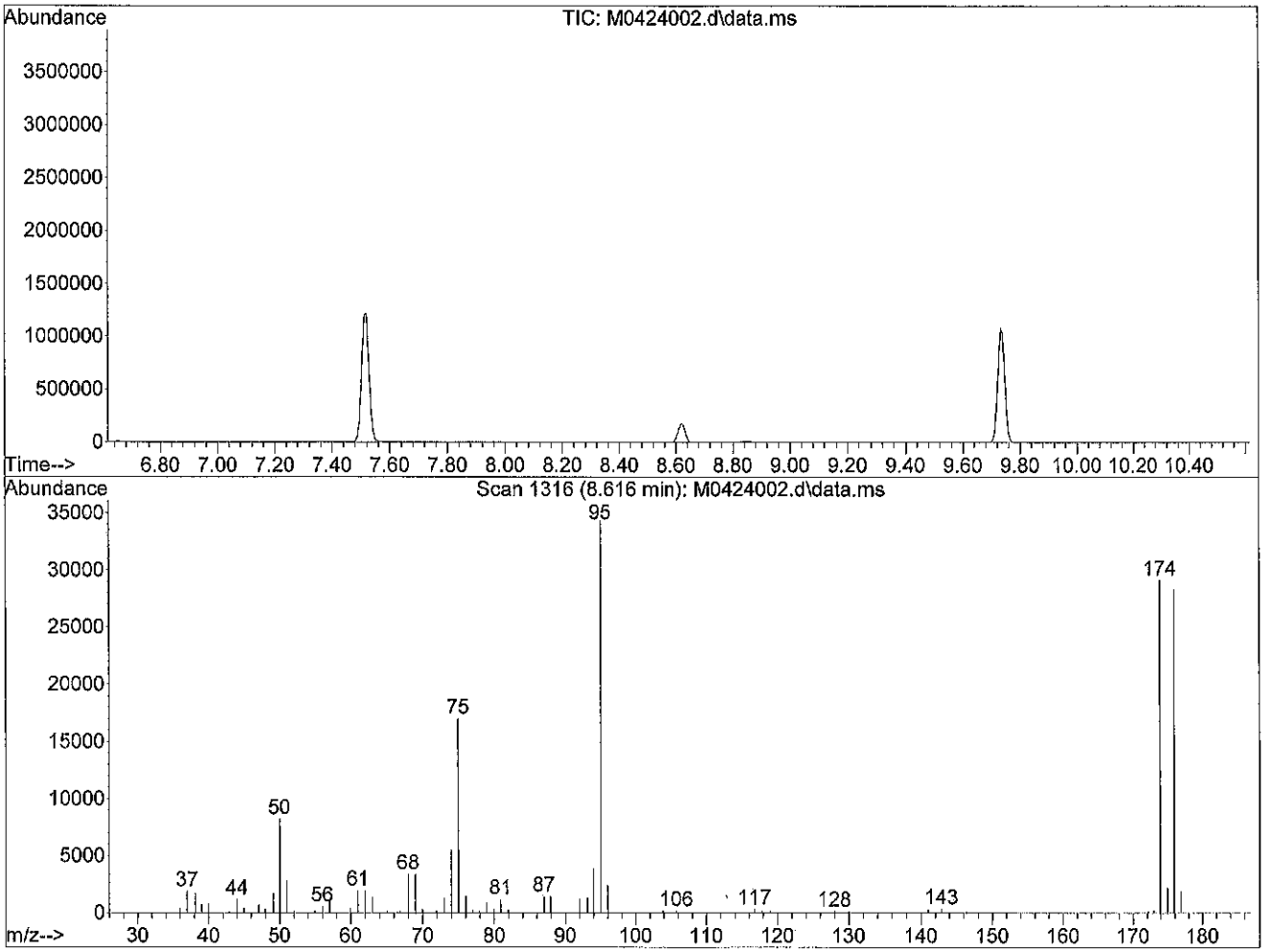
Spectrum Information: Scan 1316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	29.0	10030	PASS
75	95	30	80	52.9	18280	PASS
95	95	100	100	100.0	34536	PASS
96	95	5	9	6.6	2289	PASS
173	174	0.00	2	0.7	191	PASS
174	95	50	100	79.5	27456	PASS
175	174	5	9	7.0	1915	PASS
176	174	95	101	96.5	26504	PASS
177	176	5	9	6.6	1751	PASS

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424002.d
Acq On : 24 Apr 2014 7:53 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014



Spectrum Information: Scan 1316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.0	8234	PASS
75	95	30	80	49.5	17000	PASS
95	95	100	100	100.0	34360	PASS
96	95	5	9	7.1	2437	PASS
173	174	0.00	2	0.8	219	PASS
174	95	50	100	84.8	29144	PASS
175	174	5	9	7.6	2220	PASS
176	174	95	101	97.2	28336	PASS
177	176	5	9	6.6	1862	PASS

GC/MS QA-QC Check Report

Tune File : X:\VOLATILE\MORRIS\DATA\M140424\M0424002.d
Tune Time : 24 Apr 2014 7:53 am

Daily Calibration File : X:\VOLATILE\MORRIS\DATA\M140424\M0424007.d

555321 799812 615337

260827

File	Sample	Surrogate Recovery %			Internal Standard Responses		
M0424008.d							
	SB0424W1	81	92	92	556225	819272	607674
				239241			
M0424009.d							
	SBD0424W1	80	93	94	559404	818347	621360
				242217			
M0424011.d							
	MB0424W1	82	94	93	546057	785812	609082
				242258			
M0424012.d							
	04-157-02b	85	96	94	544370	778970	616193
				243243			
M0424013.d							
	04-157-03b	83	93	94	545458	788072	607059
				243685			
M0424014.d							
	04-157-04b	84	94	91	541661	789635	619674
				240603			
M0424015.d							
	04-157-05b	84	96	93	546803	781836	617150
				243624			
M0424020.d							
	04-157-01b	85	96	93	540343	785590	624108
				250651			
M0424022.d							
	04-157-06b	84	94	93	543596	791529	613134
				243418			

(fails) - fails 12hr time check * - fails criteria

Created: Fri Apr 25 11:29:06 2014 Morris

Sequence Name: C:\msdchem\1\sequence\M140328.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140328\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

	Line		Sample Name/Misc Info
1)	Sample	1	M0328001 M140324W 50ng bfb mass tune
2)	Sample	2	M0328002 M140324W blank
3)	Sample	3	M0328003 M140324W 0.20 PPB ICAL
4)	Sample	4	M0328004 M140324W 1.0 PPB ICAL
5)	Sample	5	M0328005 M140324W 2.0 PPB ICAL
6)	Sample	6	M0328006 M140324W 5.0 PPB ICAL
7)	Sample	7	M0328007 M140324W 10 PPB ICAL
8)	Sample	8	M0328008 M140324W BLANK
9)	Sample	9	M0328009 M140324W 25 PPB ICAL
10)	Sample	10	M0328010 M140324W BLANK
11)	Sample	11	M0328011 M140324W 50 PPB ICAL
12)	Sample	12	M0328012 M140324W BLANK
13)	Sample	13	M0328013 M140324W BLANK
14)	Sample	14	M0328014 M140324W ICV0328W1
15)	Sample	15	M0328015 M140324W BLANK
16)	Sample	16	M0328016 M140324W BLANK
17)	Sample	17	M0328017 M140324W BLANK
18)	Sample	18	M0328018 M140324W 03-202-01a 1:100 SCREEN
19)	Sample	19	M0328019 M140324W 03-202-02a 1:100 SCREEN
20)	Sample	20	M0328020 M140324W 03-202-03a 1:100 SCREEN
21)	Sample	21	M0328021 M140324W 03-202-04a 1:100 SCREEN
22)	Sample	22	M0328022 M140324W 03-206-04c 1:100 SCREEN
23)	Sample	23	M0328023 M140324W 03-206-08c 1:100 SCREEN
24)	Sample	24	M0328024 M140324W 03-206-12c 1:100 SCREEN
25)	Sample	25	M0328025 M140324W 03-206-16c 1:100 SCREEN
26)	Sample	26	M0328026 M140324W 03-207-01a 1:100 SCREEN
27)	Sample	27	M0328027 M140324W 03-207-02a 1:100 SCREEN
28)	Sample	28	M0328028 M140324W 03-207-03a 1:100 SCREEN
29)	Sample	29	M0328029 M140324W 03-207-04a 1:100 SCREEN
30)	Sample	30	M0328030 M140324W 03-207-05a 1:100 SCREEN
31)	Sample	31	M0328031 M140324W 03-207-06a 1:100 SCREEN
32)	Sample	32	M0328032 M140324W 03-207-07a 1:100 SCREEN
33)	Sample	33	M0328033 M140324W 03-207-08a 1:100 SCREEN
34)	Sample	34	M0328034 M140324W 03-207-09a 1:100 SCREEN

Sequence Name: C:\msdchem\1\sequence\M140424.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140424\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0424001 M140328W 50ng bfb mass tune
2)	Sample 2	M0424002 M140328W 50ng bfb mass tune
3)	Sample 3	M0424003 M140328W CCV0424W1
4)	Sample 4	M0424004 M140328W CCV0424W2
5)	Sample 5	M0424005 M140328W 04-182-01a 1:100 SCREEN
6)	Sample 6	M0424006 M140328W 04-182-02a 1:100 SCREEN
7)	Sample 7	M0424007 M140328W CCV0424W3
8)	Sample 8	M0424008 M140328W SB0424W1
9)	Sample 9	M0424009 M140328W SBD0424W1
10)	Sample 10	M0424010 M140328W NEW H2O VOA TEST 4
11)	Sample 11	M0424011 M140328W MB0424W1
12)	Sample 12	M0424012 M140328W 04-157-02b
13)	Sample 13	M0424013 M140328W 04-157-03b
14)	Sample 14	M0424014 M140328W 04-157-04b
15)	Sample 15	M0424015 M140328W 04-157-05b
16)	Sample 16	M0424016 M140328W MB0424A1 1:5
17)	Sample 17	M0424017 M140328W 04-193-02A 1:5
18)	Sample 18	M0424018 M140328W 04-193-01A 1:5
19)	Sample 19	M0424019 M140328W 04-193-01A 1:5 DUP
20)	Sample 20	M0424020 M140328W 04-157-01b
21)	Sample 21	M0424021 M140328W BLANK
22)	Sample 22	M0424022 M140328W 04-157-06b
23)	Sample 23	M0424023 M140328W 04-167-01b
24)	Sample 24	M0424024 M140328W 04-167-02b
25)	Sample 25	M0424025 M140328W 04-167-03b
26)	Sample 26	M0424026 M140328W 04-167-04b
27)	Sample 27	M0424027 M140328W 04-167-05b
28)	Sample 28	M0424028 M140328W 04-167-06b
29)	Sample 29	M0424029 M140328W 04-182-01b

OnSite Environmental Inc.

WATER EXTRACTION LOG

Instrument Run #: M140424
Date: 4-24-14

Int. Std./Surr. Stock#: V3-125-12 / V3-125-13
Matrix Spike Stock#: V3-125-5

# of Sample	Date	Sample I.D.	Volume	pH of Sample	Analyst	Miscellaneous
	4-24-14	MB042414W1	25mL	7	SD	
		SB042414W1		7		
		SBD042414W1		7		
1		04-157-01b		2		
2		-02b		2		
3		-03b		2		
4		-04b		2		
5		-05b		2		
6		-06b		2		
7		04-167-01b		2		
8		-02b		2		
9		-03b		2		
10		-04b		2		
11		-05b		2		
12		-06b		2		
13		04-182-01b		2		
14		-02b				DIDN'T RUN - RUN STOPPED SD 4-25-14
		MB042414A1	5mL	N/A		AIR 1:5
1		04-193-01A				
2		-02A				
		-01ADUP				

SD 4-24-14

TITLE **PROJECT**

Continued from page 114

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
	VOC ADD'S	V3-115-1	AccuStandard® M-8260-ADD-10X Method 8260 Additions 2.0 mg/mL in MeOH Lot: 213091338 Exp: Jan 25,2014 1 mL 8 comps. HIGHLY FLAMMABLE FOR LABORATORY USE ONLY WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm. STORAGE Freeze (<-10° C) 2 Danger					10-1-13	SD
5	250 ppm ICAL	V3-115-2	V3-114-4	2000 ppm	2.5 mL	1 mL	250 ppm	MeOH	10-1-13	SD
			V3-114-16							
			V3-115-1							
10	50 ppm ICAL	V3-115-3	V3-115-2	250 ppm	200 µL	1 mL	50 ppm	MeOH	10-1-13	SD
	10 ppm ICAL	V3-115-4	V3-115-3	50 ppm	200 µL	1 mL	10 ppm	MeOH	10-1-13	SD
	5 ppm ICAL	V3-115-5	V3-115-3	50 ppm	100 µL	1 mL	5 ppm	MeOH	10-1-13	SD
	1 ppm ICAL	V3-115-6	V3-115-3	50 ppm	20 µL	1 mL	1 ppm	MeOH	10-1-13	SD
	50 ppm SS (bare)	V3-115-7	V3-114-16	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
15	50 ppm CCV	V3-115-8	V3-101-7	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
			V3-101-8							
			V3-101-9							
	50 ppm CCV	V3-115-9	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
			V3-114-16							
20			V3-115-1							
	2000 ppm SS	V3-115-10	AccuStandard® M-8240/60-SS-10X Surrogate Standard VOA Mix 2.0 mg/mL in MeOH Lot: 212051380 Exp: Jun 1,2022 1 mL 4 comps. HIGHLY FLAMMABLE FOR LABORATORY USE ONLY STORAGE Ambient 2 Danger					10-7-13	SD
25	250 ppm SS	V3-115-11	V3-113-16 + V3-115-10	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-7-13	SD
	250 ppm IS	V3-115-12	V3-114-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-8-13	SD
	LCS/LCSD 50 ppm SS	V3-115-13	V3-115-10	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	
	50 ppm IS	V3-115-14	V3-114-14	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	
30	.05 ppm ICAL	V3-115-15	V3-115-6	1 ppm	.050 mL	1 mL	.050 ppm	MeOH	10-9-13	
	50 ppm CCV	V3-115-16	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-10-13	SD
			V3-114-16							
			V3-115-1							
	2500 ppm MS	V3-115-17	AccuStandard® CLP-003-R-10X Purgeable Organic Matrix Spiking Soln. 2.5 mg/mL in MeOH Lot: 212011385 Exp: Feb 6,2022 1 mL 5 comps. HIGHLY FLAMMABLE FOR LABORATORY USE ONLY; WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm. STORAGE Freeze (<-10° C) 2 Danger					10-10-13	SD
35										

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DISCLOSED TO AND UNDERSTOOD BY | DATE | PROPRIETARY INFORMATION

TITLE PROJECT

Continued from page 120

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
2000 ppm IS	V3121-1							2-3-14	SD
250 ppm IS	V3-121-2	V3-120-8	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-3-14	SD
		V3-121-1							
50 ppm IS	V3-121-3	V3-119-9	2500 ppm	20 mL	1 mL	50 ppm	MeOH	2-3-14	SD
2000 ppm SS	V3-121-4							2-4-14	SD
250 ppm SS	V3-121-13 + V3-121-4	2000 ppm	500 mL	4 mL	1 mL 250 ppm SD 2-4-14	250 ppm MeOH SD 2-4-14	MeOH	2-4-14	SD
250 ppm SS	V3-121-5	V3-120-13 + V3-121-4	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-4-14	SD
VOC Liquids	V3-121-6							2-5-14	SD
VOC ADD IS	V3-121-7							2-5-14	SD
VOC GASES	V3-121-8							2-5-14	SD
250 ppm ICAL	V3-121-9	V3-121-6	2000 ppm	125 mL	1 mL	250 ppm	MeOH	2-5-14	SD
		V3-121-7							
		V3-121-8							
50 ppm ICAL	V3121-10	V3-121-9	250 ppm	200 mL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ICAL	V3-121-11	V3-121-10	50 ppm	200 mL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ICAL	V3-121-12	V3-121-10	50 ppm	100 mL	1 mL	5 ppm	MeOH	2-5-14	SD

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 212051380 4 comps.
Exp: Jun 1,2022 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

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M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 213121006 8 comps.
Exp: Apr 3,2014 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Califor to cause cancer and birth defects or ot reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-502B-10X 1 mL
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424 6 comps.
Exp: May 2,2016 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

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BOOK PAGE

TITLE

PROJECT

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ANALYTE	LAB ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Initials
1 ppm ICAL	V3-122-1	V3-121-16	50 ppm	20mL	1mL	1ppm	MeOH	2-5-14	SD
6 ppm ICAL	V3-122-2	V3-122-1	1 ppm	5mL	0.5mL	0.6 ppm	MeOH	2-5-14	SD
ICV VOC LIQUIDS	V3-122-3								
ICV VOC ADDs	V3-122-4								
ICV VOC GASES	V3-122-5								
50 ppm ICV	V3-122-6	V3-122-3	2000 ppm	25mL	1mL	50 ppm	MeOH	2-5-14	SD
		V3-122-4							
		V3-122-5							
100 ppm ACRYL/DCB	V3-122-7	V3-117-11	100 ppm	500 µL	1mL	100 ppm	MeOH	2-5-14	SD
		V3-117-12	100 ppm	500 µL					
50 ppm ACRYL/DCB	V3-122-8	V3-122-7	100 ppm	500 µL	1mL	50 ppm	MeOH	2-5-14	SD
10 ppm ACRYL/DCB	V3-122-9	V3-122-8	50 ppm	200 µL	1mL	10 ppm	MeOH	2-5-14	SD
5 ppm ACRYL/DCB	V3-122-10	V3-122-8	50 ppm	100 µL	1mL	5 ppm	MeOH	2-5-14	SD
50 ppm CCV	V3-122-11	V3-121-6	2000 ppm	25mL	1mL	50 ppm	MeOH	2-7-14	SD
		V3-121-7	2000 ppm	25mL					
		V3-121-8	2000 ppm	25mL					
250 ppm IS	V3-122-12	V3-121-1	2000 ppm	500 µL	1mL	250 ppm	MeOH	2-7-14	SD
250 ppm SS	V3-122-13	V3-121-4	2000 ppm	500 µL	1mL	250 ppm	MeOH	2-18-14	SD
2000 ppm IS	V3-122-14							2-24-14	SD
250 ppm IS	V3-122-15	V3-121-1	2000 ppm	500 µL	1mL	250 ppm	MeOH	2-24-14	SD
		V3-122-14							

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M-502A-R3-10X
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
1 mL
Lot: 213091216
Exp: Sep 19,2016
55 comps.
HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

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M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
1 mL
Lot: 214011413
Exp: Jun 3,2014
8 comps.
HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

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M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
1 mL
Lot: 213071142
Exp: Jul 17,2016
6 comps.
HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
1 mL
Lot: 212111287
Exp: Nov 19,2022
4 comps.
HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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PROPRIETARY INFORMATION

TITLE

PROJECT

Continued from page 122

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
	50 ppm SS (Tune)	V3-123-1	V3-121-4	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-26-14	SD
	50 ppm CCV	V3-123-2	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-27-14	SD
			V3-121-7							
			V3-121-8							
waldo	50 ppm IS	V3-123-3	V3-122-14	2000 ppm	100 µL	4 mL	50 ppm	MeOH	2-27-14	EEN
waldo	50 ppm SS	V3-123-4	V3-121-4	2000 ppm	100 µL	4 mL	50 ppm	MeOH	2-27-14	EEN
	2000 ppm SS	V3-123-5							2-28-14	SD
Albert	250 ppm SS	V3-123-6	V3-121-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-28-14	SD
			V3-123-5						spent 3-2-14	
Morris	50 ppm IS	V3-123-7	V3-122-14	2000 ppm	625 µL	25 mL	50 ppm	MeOH	3-6-14	SD
	2000 ppm IS	V3-123-8							3-10-14	SD
									spent 3-13-14	
Albert	250 ppm IS	V3-123-9	V3-122-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
			V3-123-8							
Albert	250 ppm SS	V3-123-10	V3-123-5	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
	50 ppm CCV	V3-123-11	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-10-14	SD
			V3-121-7							
			V3-121-8							
	50 ppm CCV	V3-123-12	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-121-8							
	VOC GASES	V3-123-13							3-13-14	SD
	50 ppm CCV	V3-123-14	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-123-13							

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M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028
Exp: Nov 6,2023
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287
Exp: Nov 19,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424
Exp: May 2,2016
1 mL
6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

Continued to page

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TITLE

PROJECT

Continued from page 123	Lab ID	Stock ID	Stock conc	Stock Vol	Final Vol	Final conc	Solvent	Date	Initials
Analyte									
250 ppm IS/SS	V3-124-1	V3-123-8	2000 ppm	250 µL	2 mL	250 ppm	MeOH	3-14-14	EEM
		V3-123-5		250 µL					
~~50 ppm MS~~	~~V3-124-2~~	~~V3-115-7~~	~~7500 ppm~~	~~83 µL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~
50 ppm ICV	V3-124-3	V3-123-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-19-14	SD
		V3-123-4							
		V3-123-5							
VOC Liquids	V3-124-4							3-19-14	SD
VOC ADD's	V3-124-5							3-19-14	SD
250 ppm ICAL	V3-124-6	V3-123-3	2000 ppm	125 mL	1 mL	250 ppm	MeOH	3-19-14	SD
		V3-124-4							
		V3-124-5							
50 ppm ICAL	V3-124-7	V3-124-6	250 ppm	200	1 mL	50 ppm	MeOH	3-19-14	SD
10 ppm ICAL	V3-124-8	V3-124-7	50 ppm	200	1 mL	10 ppm	MeOH	3-19-14	SD
5 ppm ICAL	V3-124-9	V3-124-7	50 ppm	100	1 mL	5 ppm	MeOH	3-19-14	SD
1 ppm ICAL	V3-124-10	V3-124-7	50 ppm	20	1 mL	1 ppm	MeOH	3-19-14	SD
~~ICV 50 ppm~~	~~V3-124-11~~	~~V3-123-3~~	~~2000 ppm~~	~~25 mL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~
		V3-124-4							
		V3-124-5							
2000 ppm SS	V3-124-12							3-21-14	SD
~~250 ppm IS~~	~~V3-124-13~~	~~V3-123-8~~	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~
~~250 ppm SS~~	~~V3-124-14~~	~~V3-123-5~~	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~
		V3-124-12							
8000 ppm IS	V3-124-15							3-31-14	SD

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M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214021286 8 comps.
Exp: Jun 28,2014 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Storage: Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6,2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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PROPRIETARY INFORMATION

TITLE

PROJECT

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	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
Albert	250 ppm IS	V3-125-1	V3-123-8 + V3-124-15	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-31-14	SD
Albert	250 ppm SS	V3-125-2	V3-124-12	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-31-14	SD
Albert	250 ppm IS	V3-125-3	V3-124-15	2000 ppm	950 µL	2 mL	250 ppm	MeOH	4-9-14	SD
	50 ppm CCV	V3-125-4	V3-123-13	2000 ppm	25 µL 30000 ppm	1 mL 25 µL	50 ppm 50 ppm	MeOH	4-9-14	SD
			V3-124-4			4 mL				
			V3-124-5							
10	50 ppm M.S.	V3-125-5	V3-115-17	2500 ppm	20 mL	1 mL	50 ppm	MeOH	4-9-14	SD
Albert	250 ppm SS	V3-125-6	V3-124-12	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-16-14	SD
Albert	250 ppm IS	V3-125-7	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-16-14	SD
	2000 ppm IS	V3-125-8							4-21-14	SD
15										
	2000 ppm SS	V3-125-9							4-21-14	SD
20										
Albert	250 ppm IS	V3-125-10	V3-124-15	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-21-14	SD
Albert	250 ppm SS	V3-125-11	V3-125-9	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-21-14	SD
Morris	50 ppm IS	V3-125-12	V3-125-8	2000 ppm	6.25 mL	2 mL	50 ppm	MeOH	4-21-14	SD
Morris	50 ppm SS	V3-125-13	V3-125-9	2000 ppm	6.25 mL	2 mL	50 ppm	MeOH	4-21-14	SD
25	50 ppm CCV	V3-125-14	V3-123-13	2000 ppm	25 mL	1 mL	50 ppm	MeOH	4-28-14	SD
			V3-124-4			4 mL				
			V3-124-5							
Albert	250 ppm IS	V3-125-15	V3-125-8	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-25-14	SD
Albert	250 ppm SS	V3-125-16	V3-125-9	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-25-14	SD
30										
35										

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M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
Storage: Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6,2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

Continued to page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

PROPRIETARY INFORMATION

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

April 25, 2014

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0180-121-09
Laboratory Reference No. 1404-167

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on April 21, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: April 25, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-167
Project: 0180-121-09

Case Narrative

Samples were collected on April 18, 2014 and received by the laboratory on April 21, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: April 25, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-167
Project: 0180-121-09

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-110-140418	04-167-01	Water	4-18-14	4-21-14	
MW-107-140418	04-167-02	Water	4-18-14	4-21-14	
PZ-719-140418	04-167-03	Water	4-18-14	4-21-14	
PZ-720-140418	04-167-04	Water	4-18-14	4-21-14	
RIN-1-140418	04-167-05	Water	4-18-14	4-21-14	
TB-1-140418	04-167-06	Water	4-18-14	4-21-14	

Date of Report: April 25, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-167
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-110-140418**					
Laboratory ID:	04-167-01					
Vinyl Chloride	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Trichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*86*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: April 25, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-167
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-107-140418**					
Laboratory ID:	04-167-02					
Vinyl Chloride	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Trichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*84*	*62-122*				
Toluene-d8	*95*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: April 25, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-167
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PZ-719-140418**					
Laboratory ID:	04-167-03					
Vinyl Chloride	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Trichloroethene	1.8	0.20	EPA 8260C	4-24-14	4-24-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*84*	*62-122*				
Toluene-d8	*94*	*70-120*				
4-Bromofluorobenzene	*92*	*71-120*				

Date of Report: April 25, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-167
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PZ-720-140418**					
Laboratory ID:	04-167-04					
Vinyl Chloride	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Trichloroethene	5.5	0.20	EPA 8260C	4-24-14	4-24-14	
Tetrachloroethene	0.40	0.20	EPA 8260C	4-24-14	4-24-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*83*	*62-122*				
Toluene-d8	*95*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: April 25, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-167
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RIN-1-140418**					
Laboratory ID:	04-167-05					
Vinyl Chloride	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Trichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*82*	*62-122*				
Toluene-d8	*94*	*70-120*				
4-Bromofluorobenzene	*92*	*71-120*				

Date of Report: April 25, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-167
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TB-1-140418**					
Laboratory ID:	04-167-06					
Vinyl Chloride	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Trichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*85*	*62-122*				
Toluene-d8	*94*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: April 25, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-167
Project: 0180-121-09

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0424W1					
Vinyl Chloride	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Trichloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-24-14	4-24-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*82*	*62-122*				
Toluene-d8	*94*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: April 25, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-167
Project: 0180-121-09

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0424W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**8.25**	**7.88**	10.0	10.0	83	79	63-142	5	17	
Benzene	**8.37**	**8.32**	10.0	10.0	84	83	78-125	1	15	
Trichloroethene	**8.92**	**8.89**	10.0	10.0	89	89	80-125	0	15	
Toluene	**8.75**	**8.77**	10.0	10.0	88	88	80-125	0	15	
Chlorobenzene	**10.3**	**10.2**	10.0	10.0	103	102	80-140	1	15	
Surrogate:										
Dibromofluoromethane					*81*	*80*	*62-122*			
Toluene-d8					*92*	*93*	*70-120*			
4-Bromofluorobenzene					*92*	*94*	*71-120*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Page 1 of 1

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Company: GeoEngineers
Project Number: 0180-121-09
Project Name: Palermo
Project Manager: Nick Rohrbach
Sampled by: B. Brayfield / Carlen Volk

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 04-167

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C PVOC list	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
1	MW-110-140418	4/18/14	1005	W	3					X												
2	MW-107-140418		1110							X												
3	PZ-719-140418		1330							X												
4	PZ-720-140418		1420							X												
5	RIN-1-140418		1125							X												
6	TB-1-140418				2					X												

	Signature	Company	Date	Time
Relinquished		GeoEngineers	4/21/14	1000
Received		Sound	4-21-14	1001
Relinquished		Sound	4-21-14	1611
Received		OSE	4/21/14	1114
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☒ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 0180-121-09

OnSite Project Number: 04-167

Initiated by: MV

Date Initiated: 4/21/14

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	(Yes)	No	N/A	1 2 3 4
1.2 Were the custody seals intact?	(Yes)	No	N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	(Yes)	No	N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	(Yes)	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	(Yes)	No	Temperature: 0	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	(N/A)		
1.7 How were the samples delivered?	Client	(Courier)	UPS/FedEx	OSE Pickup Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	(Yes)	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	(Yes)	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	(Yes)	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	(No)		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	(Yes)	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	(No)		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	(No)		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	(No)		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	(Yes)	No		1 2 3 4
3.4 Have the samples been correctly preserved?	(Yes)	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and air bubbles?	(Yes)	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	(Yes)	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	(No)		1 2 3 4
3.8 Was method 5035A used?	Yes	No	(N/A)	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		(N/A)	1 2 3 4

Explain any discrepancies:

2,4) Sample 3) PZ-719-140418 4/18/14 1330 on COC
PZ-719 " " on vial

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

//SERVER\OSE\Administration\forms\cooler_checklist.xls

Complete Data Package

- Volatiles by EPA 8260C

Volatiles by EPA 8260C Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424023.d
Acq On : 24 Apr 2014 5:04 pm
Operator :
Sample : 04-167-01b
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Apr 25 10:52:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

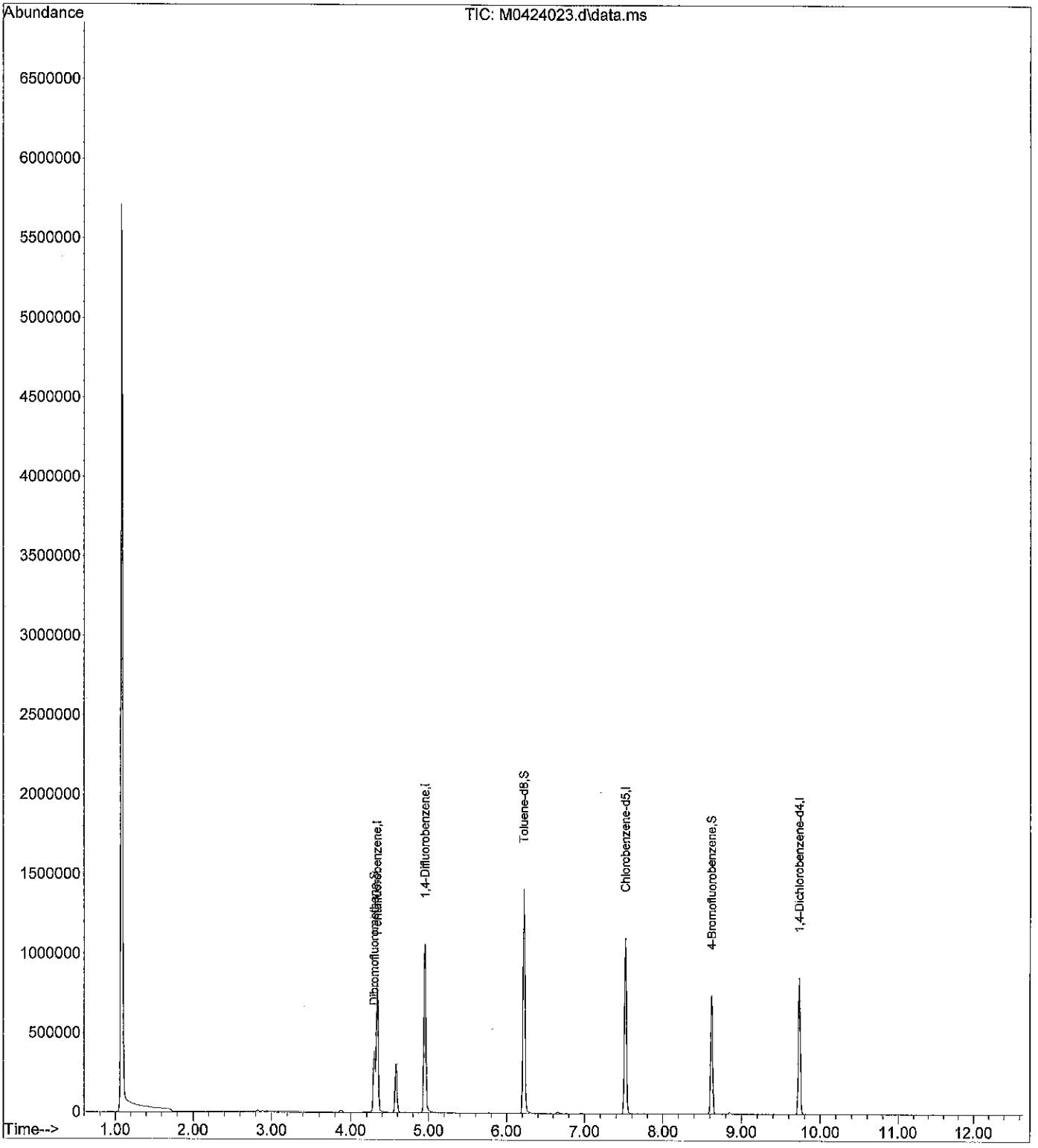
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	546955	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	774007	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	615118	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	244941	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	213822	8.58	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 85.80%			
36) Toluene-d8	6.220	98	873524	9.58	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.80%			
54) 4-Bromofluorobenzene	8.622	95	257163	9.42	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.20%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424023.d
Acq On : 24 Apr 2014 5:04 pm
Operator :
Sample : 04-167-01b
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Apr 25 10:52:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424024.d
Acq On : 24 Apr 2014 5:27 pm
Operator :
Sample : 04-167-02b
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Apr 25 10:52:59 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

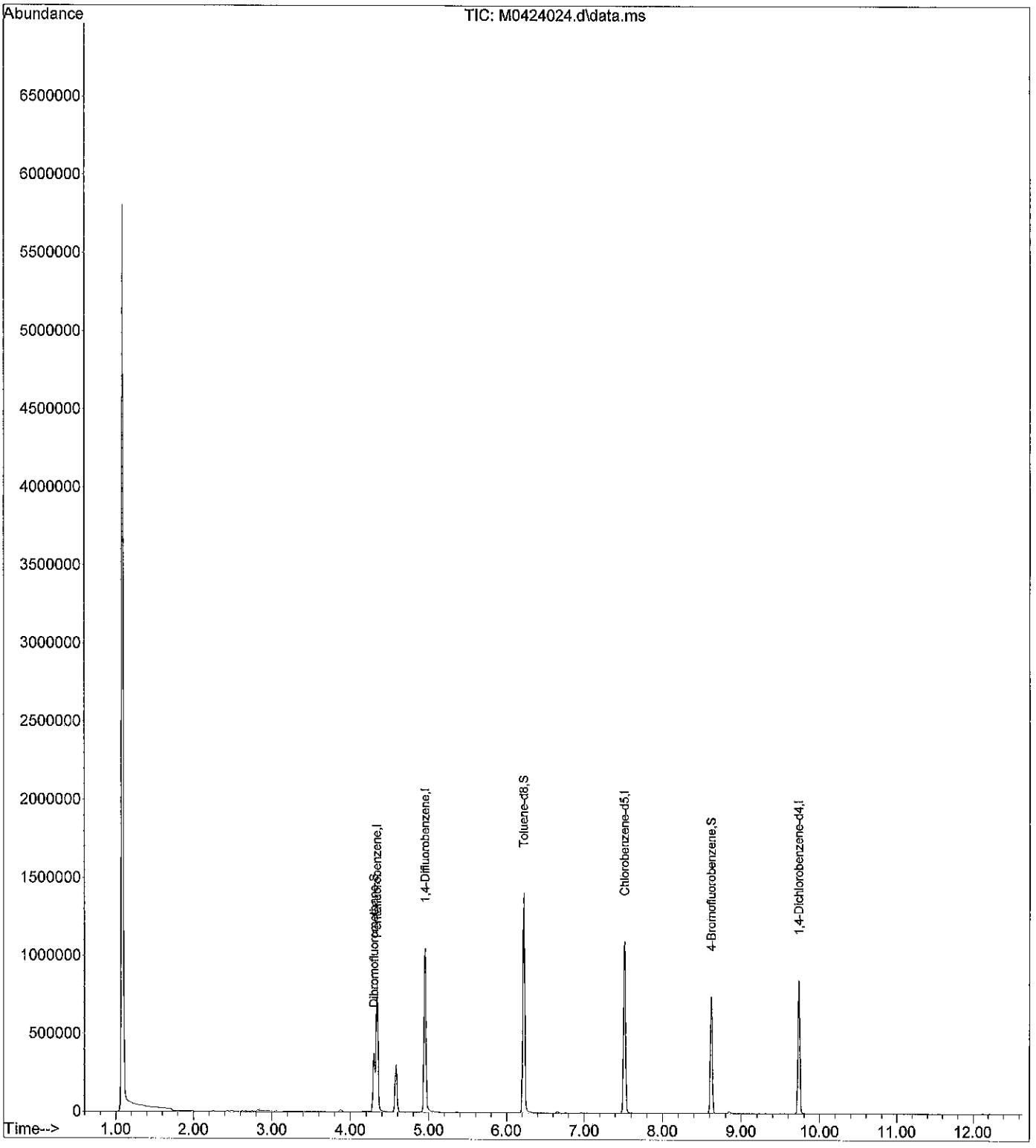
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	540052	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	779951	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	604451	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	239439	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	206565	8.40	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.00%			
36) Toluene-d8	6.220	98	869232	9.46	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 94.60%			
54) 4-Bromofluorobenzene	8.622	95	250683	9.34	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.40%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424024.d
Acq On : 24 Apr 2014 5:27 pm
Operator :
Sample : 04-167-02b
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Apr 25 10:52:59 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424025.d
Acq On : 24 Apr 2014 5:51 pm
Operator :
Sample : 04-167-03b
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Apr 25 10:53:44 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

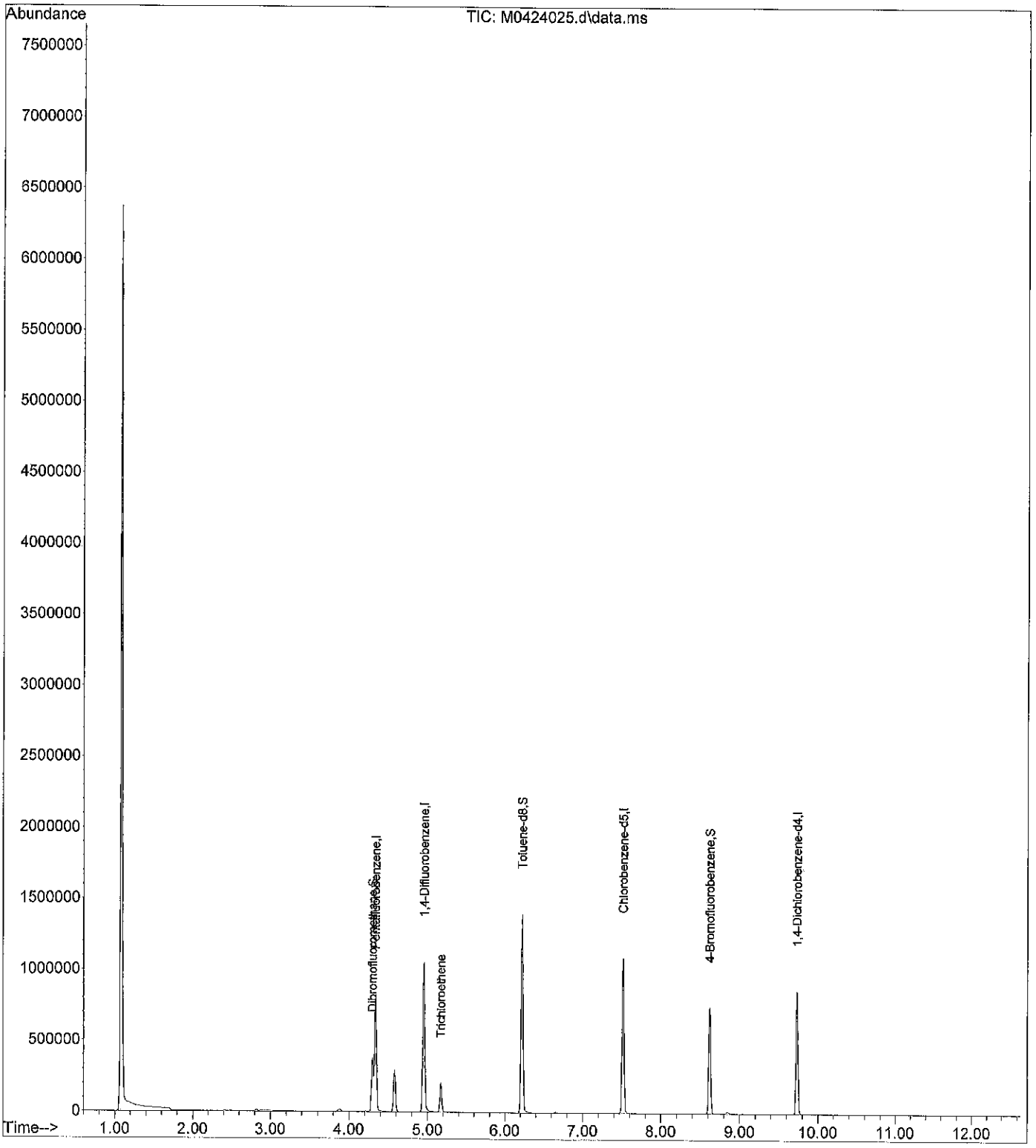
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	540109	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	778967	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	607585	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246206	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	207698	8.44	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.40%			
36) Toluene-d8	6.220	98	865730	9.43	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 94.30%			
54) 4-Bromofluorobenzene	8.622	95	249020	9.23	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.30%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	63122	1.84	ppb	99

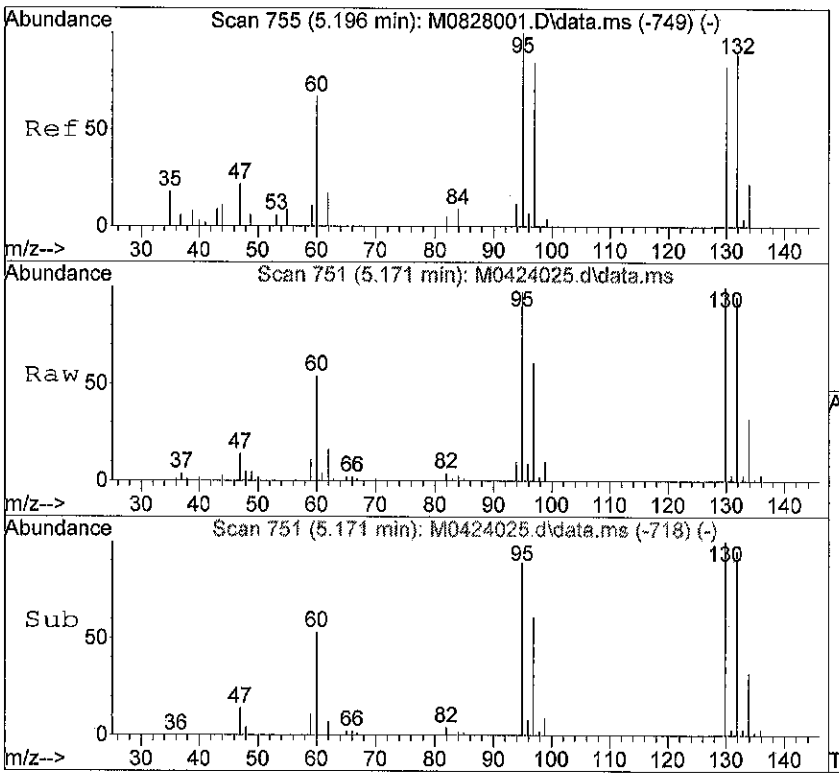
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424025.d
Acq On : 24 Apr 2014 5:51 pm
Operator :
Sample : 04-167-03b
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Apr 25 10:53:44 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

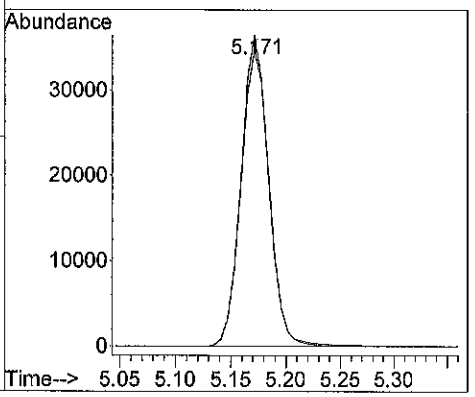




#29
Trichloroethene
Concen: 1.84 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0424025.d
Acq: 24 Apr 2014 5:51 pm

Tgt Ion:130 Resp: 63122

Ion	Ratio	Lower	Upper
130	100		
132	97.7	77.0	115.6



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424026.d
Acq On : 24 Apr 2014 6:14 pm
Operator :
Sample : 04-167-04b
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Apr 25 10:54:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

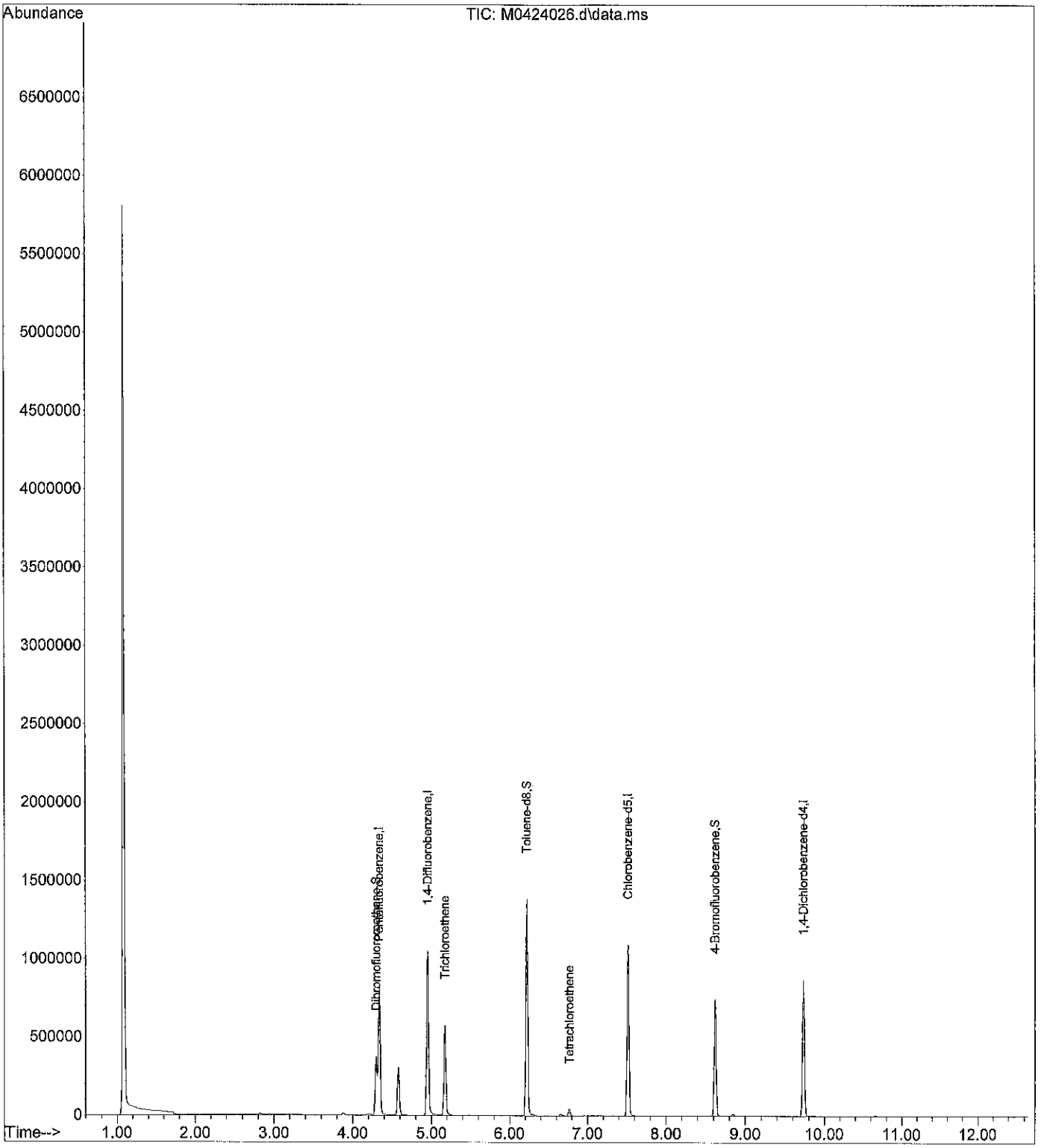
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	538958	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	770087	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	607115	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246364	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	204634	8.34	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 83.40%			
36) Toluene-d8	6.220	98	864724	9.53	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.30%			
54) 4-Bromofluorobenzene	8.622	95	252354	9.36	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.60%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	185778	5.47	ppb	98
41) Tetrachloroethene	6.769	166	13396	0.40	ppb	94

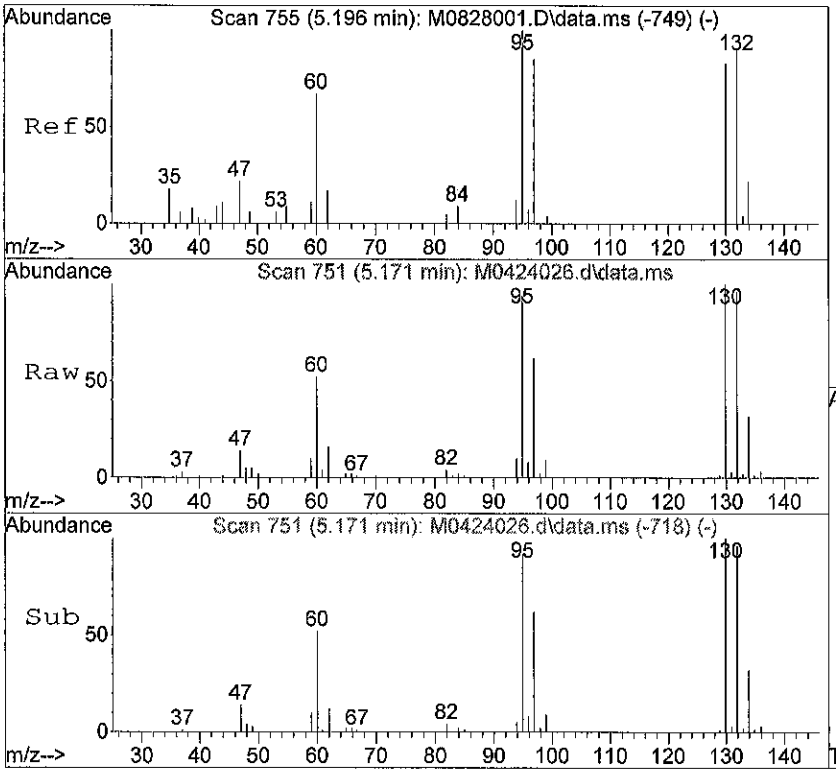
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424026.d
Acq On : 24 Apr 2014 6:14 pm
Operator :
Sample : 04-167-04b
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Apr 25 10:54:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

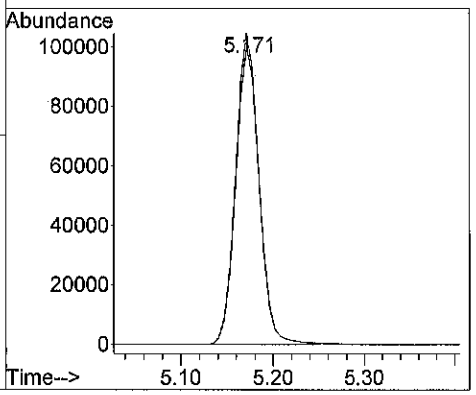


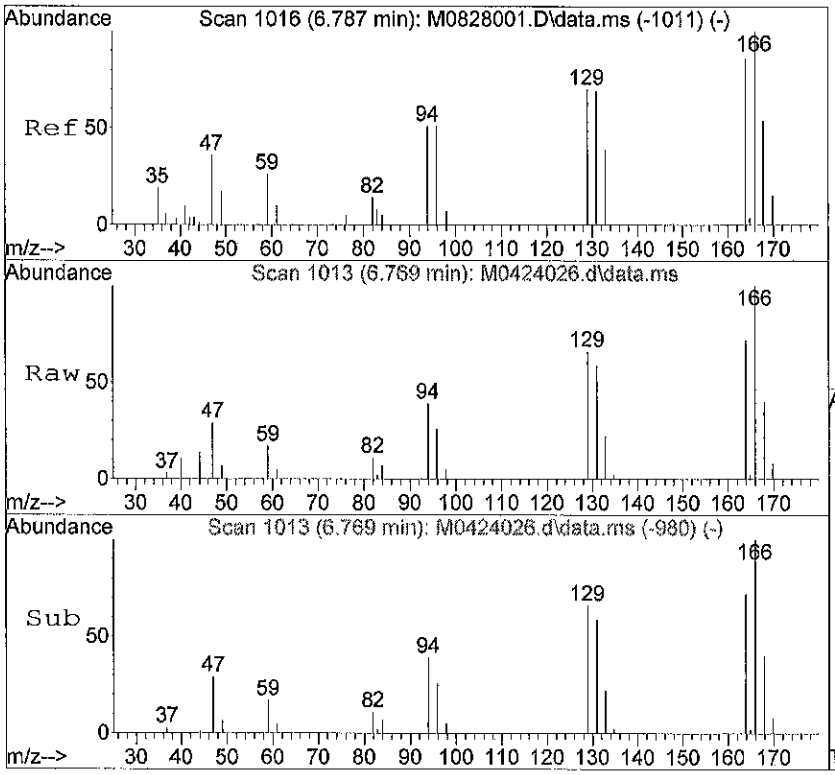


#29
Trichloroethene
Concen: 5.47 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0424026.d
Acq: 24 Apr 2014 6:14 pm

Tgt Ion:130 Resp: 185778

Ion	Ratio	Lower	Upper
130	100		
132	94.8	77.0	115.6

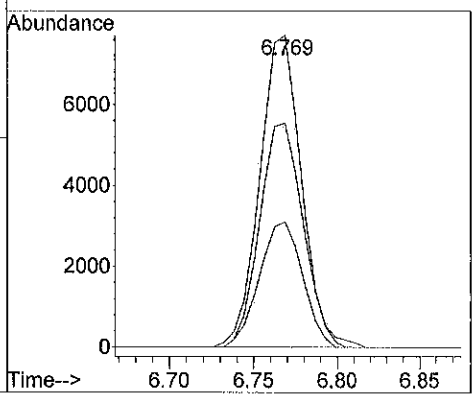




#41
Tetrachloroethene
Concen: 0.40 ppb
RT: 6.769 min Scan# 1013
Delta R.T. -0.000 min
Lab File: M0424026.d
Acq: 24 Apr 2014 6:14 pm

Tgt Ion:166 Resp: 13396

Ion	Ratio	Lower	Upper
166	100		
168	41.5	37.4	56.0
164	74.4	62.7	94.1



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424027.d
Acq On : 24 Apr 2014 6:38 pm
Operator :
Sample : 04-167-05b
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Apr 25 10:54:53 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

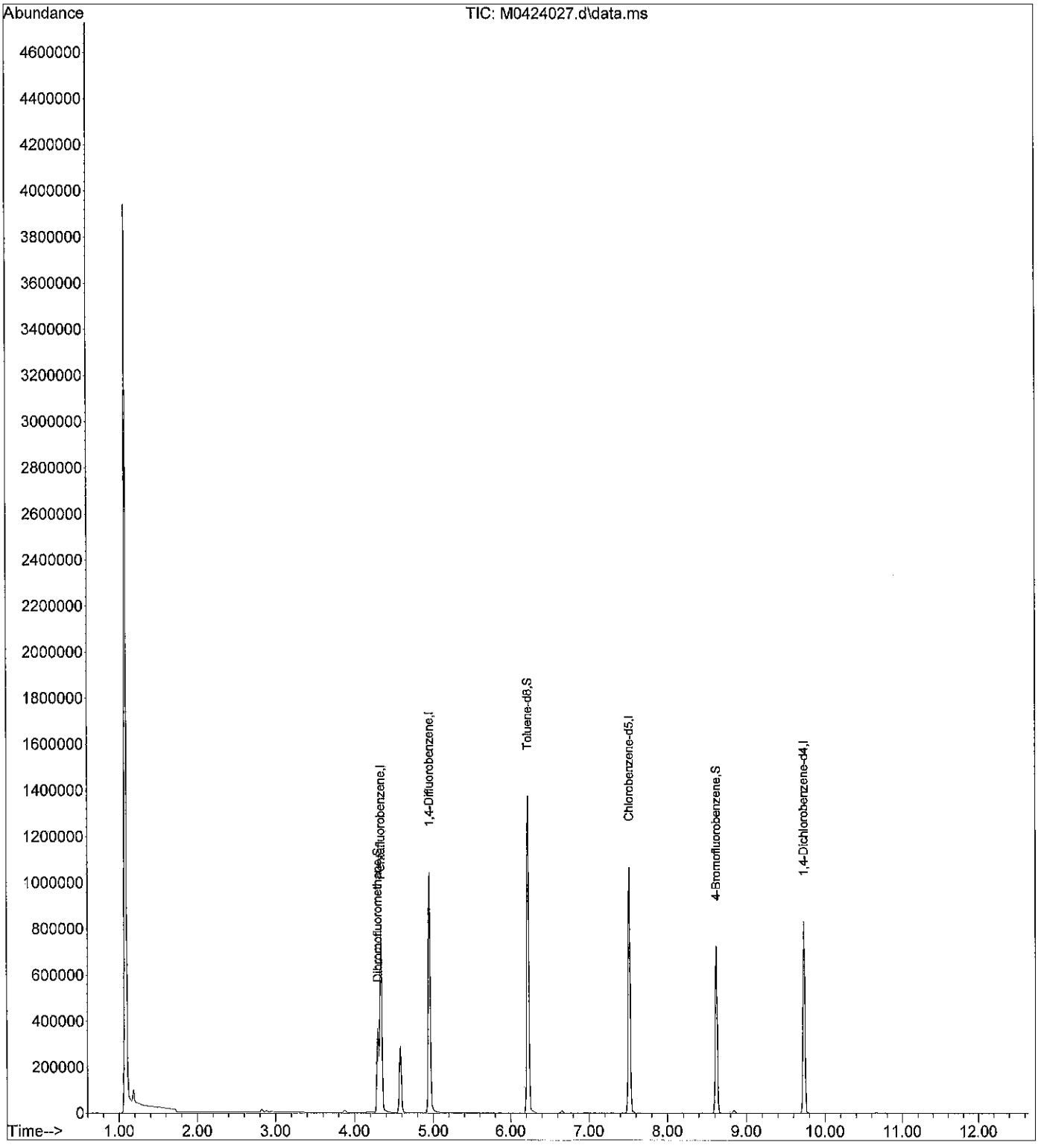
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	538380	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	766249	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	595483	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	234954	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	202109	8.24	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 82.40%			
36) Toluene-d8	6.220	98	846853	9.38	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.80%			
54) 4-Bromofluorobenzene	8.622	95	244343	9.24	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.40%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424027.d
Acq On : 24 Apr 2014 6:38 pm
Operator :
Sample : 04-167-05b
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Apr 25 10:54:53 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424028.d
Acq On : 24 Apr 2014 7:01 pm
Operator :
Sample : 04-167-06b
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Apr 25 10:55:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

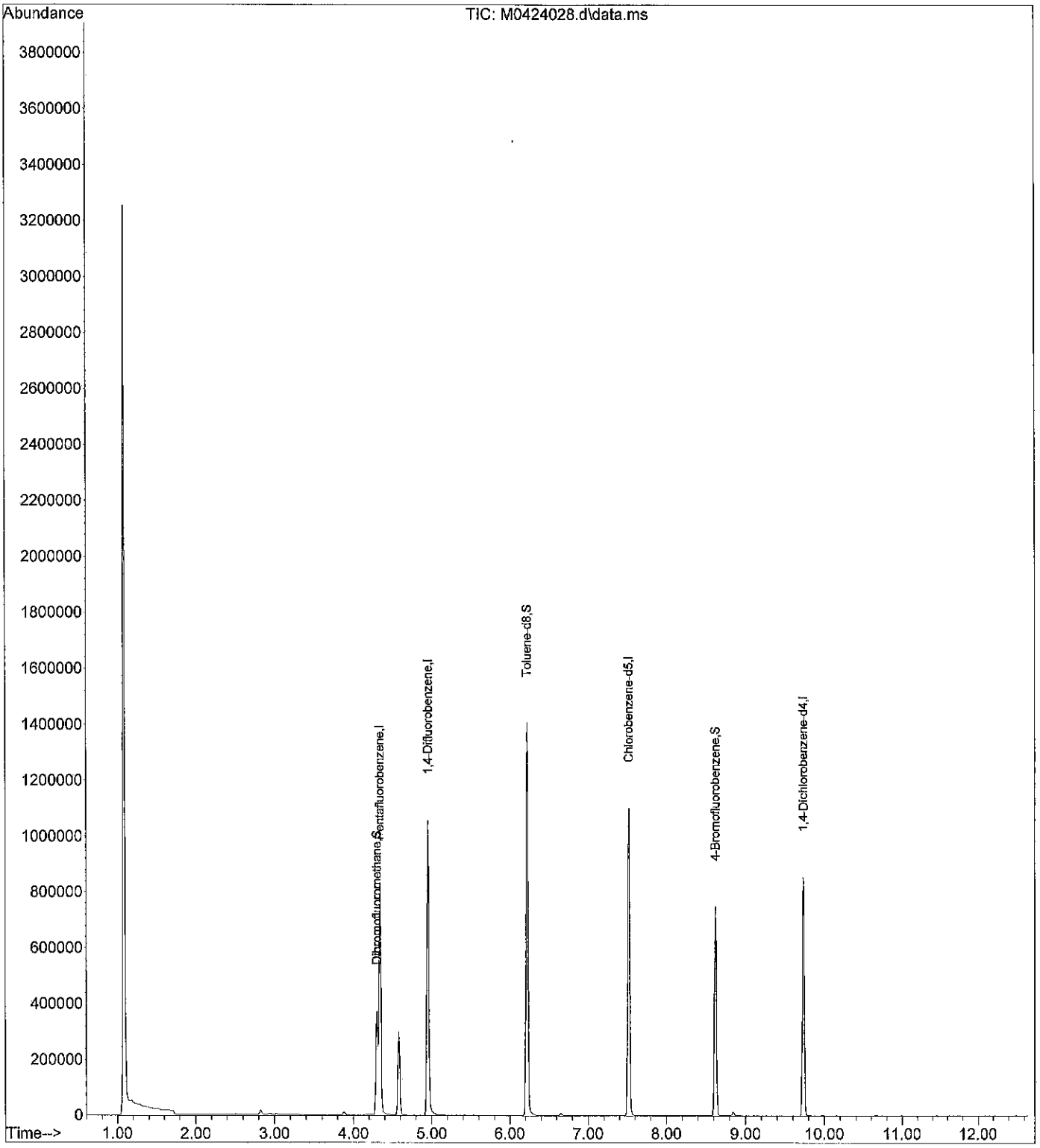
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	537983	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	777988	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	608428	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	239834	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	207030	8.45	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.50%			
36) Toluene-d8	6.220	98	865844	9.44	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 94.40%			
54) 4-Bromofluorobenzene	8.622	95	250869	9.29	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.90%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424028.d
Acq On : 24 Apr 2014 7:01 pm
Operator :
Sample : 04-167-06b
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Apr 25 10:55:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424011.d
Acq On : 24 Apr 2014 12:03 pm
Operator :
Sample : MB0424W1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 24 12:58:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

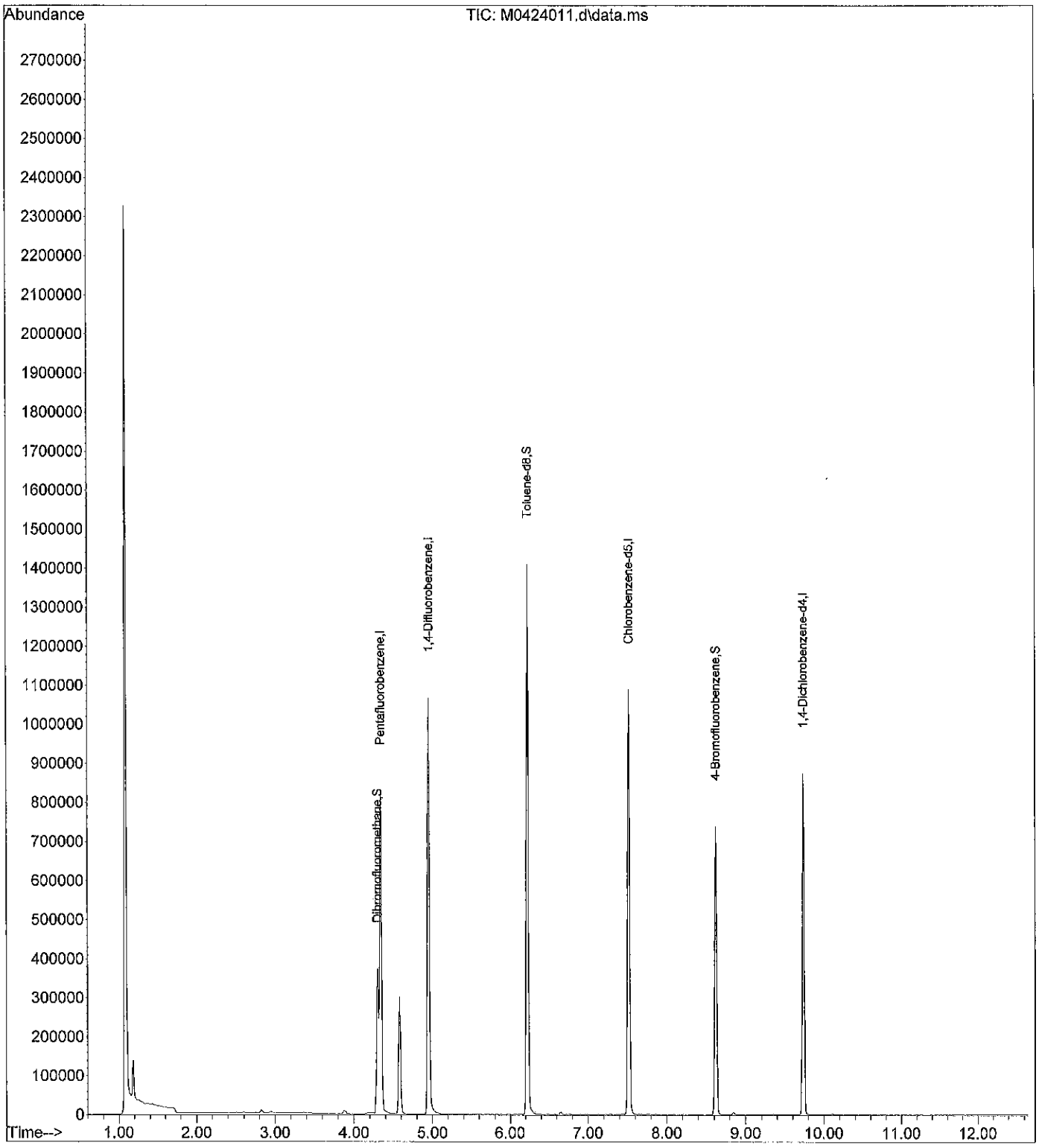
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	546057	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	785812	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	609082	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	242258	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	203928	8.20	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 82.00%			
36) Toluene-d8	6.220	98	867141	9.36	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.60%			
54) 4-Bromofluorobenzene	8.622	95	251135	9.29	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.90%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424011.d
Acq On : 24 Apr 2014 12:03 pm
Operator :
Sample : MB0424W1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 24 12:58:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424008.d
Acq On : 24 Apr 2014 10:44 am
Operator :
Sample : SB0424W1
Misc : V3-125-5
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 24 11:21:02 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

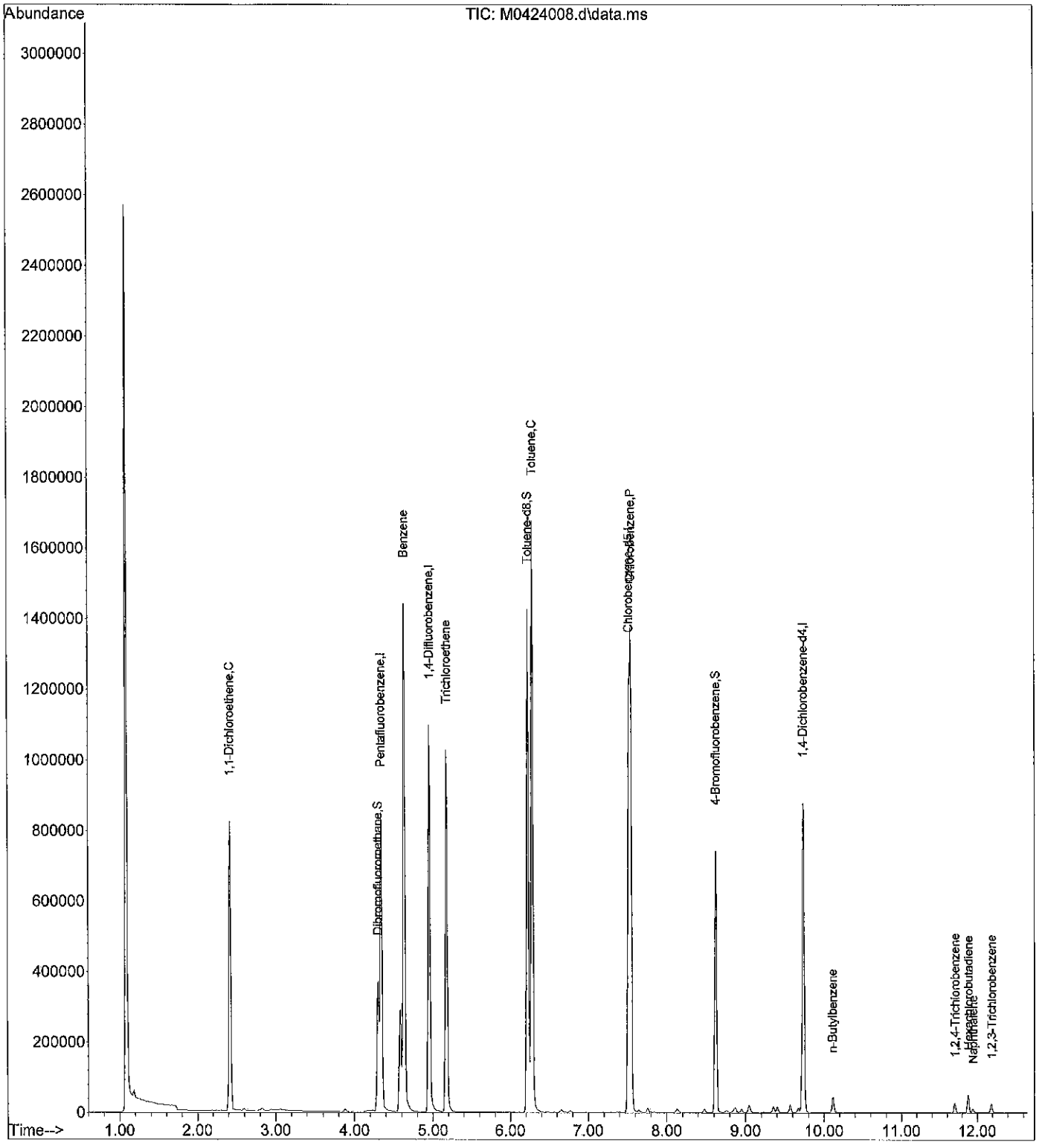
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	556225	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	819272	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	607674	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	239241	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	204446	8.07	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.70%				
36) Toluene-d8	6.220	98	883561	9.15	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 91.50%				
54) 4-Bromofluorobenzene	8.622	95	249516	9.25	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.50%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	527517	8.25	ppb		99
26) Benzene	4.629	78	1066577	8.37	ppb		99
29) Trichloroethene	5.171	130	322193	8.92	ppb		99
37) Toluene	6.275	91	1166121	8.75	ppb		100
46) Chlorobenzene	7.543	112	696506	10.29	ppb		99
70) n-Butylbenzene	10.109	91	19309	0.26	ppb		96
72) 1,2,4-Trichlorobenzene	11.707	180	10424	1.39	ppb		91
73) Hexachlorobutadiene	11.883	225	11339	1.62	ppb		96
74) Naphthalene	11.944	128	9442	1.06	ppb	#	91
75) 1,2,3-Trichlorobenzene	12.188	180	8879	1.93	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424008.d
Acq On : 24 Apr 2014 10:44 am
Operator :
Sample : SB0424W1
Misc : V3-125-5
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 24 11:21:02 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424009.d
Acq On : 24 Apr 2014 11:08 am
Operator :
Sample : SBD0424W1
Misc : V3-125-5
ALS Vial : 9 Sample Multiplier: 1

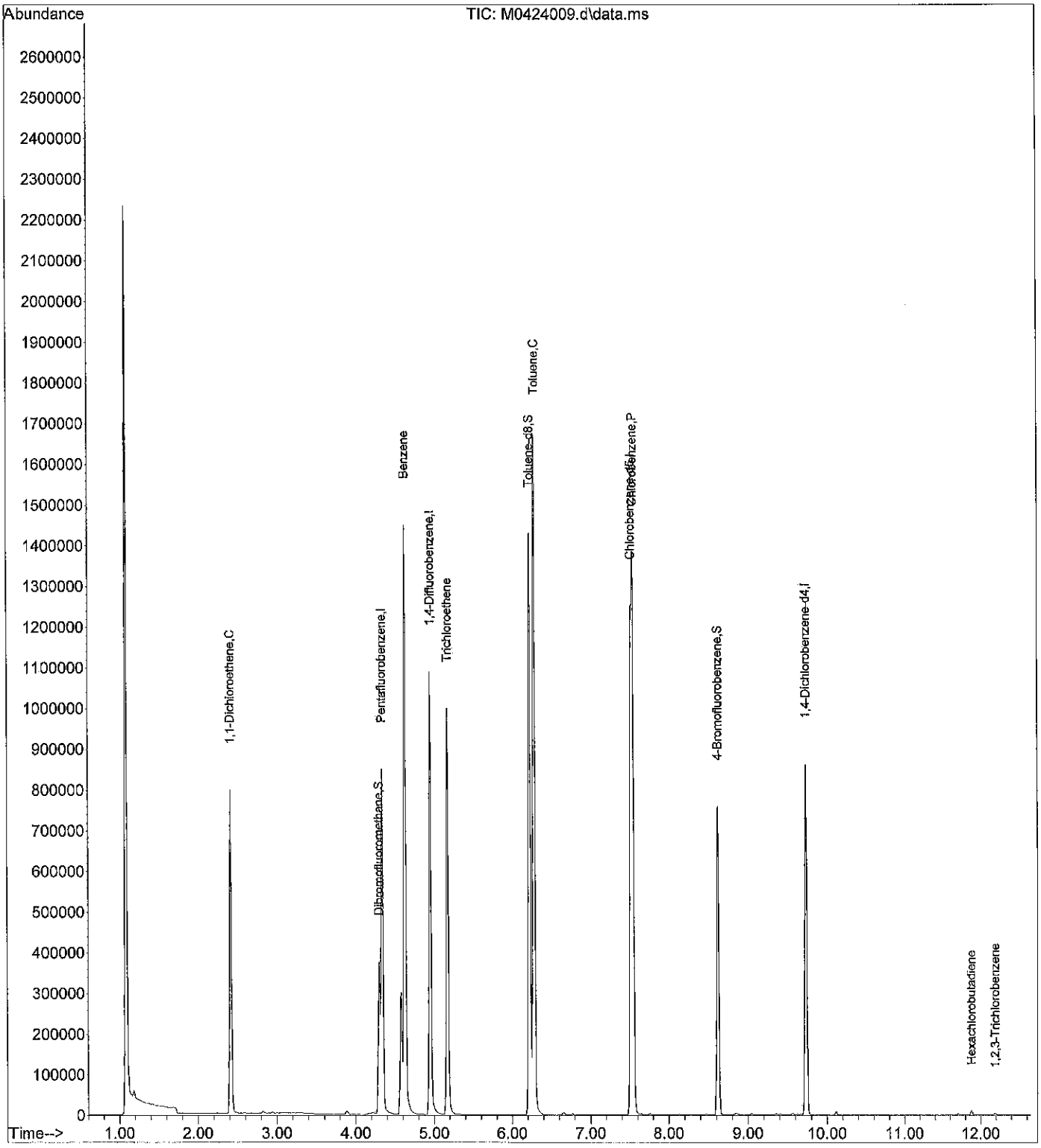
Quant Time: Apr 24 11:23:38 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	559404	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	818347	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	621360	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	242217	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	204542	8.03	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.30%			
36) Toluene-d8	6.220	98	895226	9.28	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 92.80%			
54) 4-Bromofluorobenzene	8.622	95	258476	9.37	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.70%			
Target Compounds						Qvalue
8) 1,1-Dichloroethene	2.416	61	506519	7.88	ppb	98
26) Benzene	4.629	78	1066762	8.32	ppb	99
29) Trichloroethene	5.171	130	320867	8.89	ppb	100
37) Toluene	6.281	91	1167571	8.77	ppb	99
46) Chlorobenzene	7.543	112	707235	10.22	ppb	100
73) Hexachlorobutadiene	11.877	225	2593	0.37	ppb	94
75) 1,2,3-Trichlorobenzene	12.188	180	1324	0.39	ppb	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424009.d
Acq On : 24 Apr 2014 11:08 am
Operator :
Sample : SBD0424W1
Misc : V3-125-5
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 24 11:23:38 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Compound List Report Morris

Method Path : C:\msdchem\1\methods\ .
Method File : M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014
Response Via : Initial Calibration

Total Cpnds : 75

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene	168	4.336	1.000	A	0	A	B
2		Dichlorodifluoromethane	85	1.209	0.279	A	1	A	B
3	P	Chloromethane	50	1.343	0.310	A	1	A	B
4	C	Vinyl Chloride	62	1.428	0.329	A	1	A	B
5		Bromomethane	96	1.690	0.390	A	1	A	B
6		Chloroethane	64	1.770	0.408	A	1	A	B
7		Trichlorofluoromethane	101	1.977	0.456	A	1	A	B
8	C	1,1-Dichloroethene	61	2.416	0.557	A	1	A	B
9		Acetone	43	2.471	0.570	L	1	A	B
10		Iodomethane	142	2.538	0.585	L	1	A	B
11		Carbon Disulfide	76	2.593	0.598	A	1	A	B
12		Methylene Chloride	49	2.824	0.651	A	1	A	B
13		(trans) 1,2-Dichloroethene	61	3.056	0.705	A	1	A	B
14		Methyl t-Butyl Ether	73	3.068	0.708	A	3	A	B
15	P	1,1-Dichloroethane	63	3.410	0.786	A	1	A	B
16		Vinyl Acetate	43	3.458	0.798	A	1	A	B
17		2,2-Dichloropropane	77	3.897	0.899	A	1	A	B
18		(cis) 1,2-Dichloroethene	61	3.897	0.899	A	1	A	B
19		2-Butanone	43	3.922	0.905	A	1	A	B
20		Bromochloromethane	130	4.098	0.945	A	3	A	B
21	C	Chloroform	83	4.165	0.961	A	1	A	B
22		1,1,1-Trichloroethane	97	4.318	0.996	A	1	A	B
23	S	Dibromofluoromethane	111	4.300	0.992	A	1	A	B
24		Carbon Tetrachloride	117	4.458	1.028	A	1	A	B
25		1,1-Dichloropropene	75	4.452	1.027	A	1	A	B
26		Benzene	78	4.629	1.068	A	1	A	B
27		1,2-Dichloroethane	62	4.641	1.070	A	1	A	B
28	I	1,4-Difluorobenzene	114	4.952	1.000	A	0	A	B
29		Trichloroethene	130	5.171	1.044	A	1	A	B
30	C	1,2-Dichloropropane	63	5.360	1.082	A	1	A	B
31		Dibromomethane	174	5.464	1.103	A	2	A	B
32		Bromodichloromethane	83	5.598	1.130	A	1	A	B
33		2-Chloroethyl Vinyl Ether	63	5.860	1.183	A	1	A	B
34		(cis) 1,3-Dichloropropene	75	5.982	1.208	A	1	A	B
35		Methyl Isobutyl Ketone	43	6.122	1.236	A	3	A	B
36	S	Toluene-d8	98	6.220	1.256	A	1	A	B
37	C	Toluene	91	6.275	1.267	A	1	A	B
38	I	Chlorobenzene-d5	117	7.518	1.000	A	1	A	B
39		(trans) 1,3-Dichloropropene	75	6.470	0.861	A	1	A	B
40		1,1,2-Trichloroethane	97	6.635	0.883	A	1	A	B
41		Tetrachloroethene	166	6.769	0.900	A	2	A	B
42		1,3-Dichloropropane	76	6.787	0.903	A	1	A	B
43		2-Hexanone	43	6.866	0.913	A	3	A	B
44		Dibromochloromethane	129	6.988	0.930	A	2	A	B
45		1,2-Dibromoethane	107	7.092	0.943	A	1	A	B
46	P	Chlorobenzene	112	7.543	1.003	A	1	A	B
47		1,1,1,2-Tetrachloroethane	133	7.616	1.013	A	2	A	B
48	C	Ethylbenzene	91	7.646	1.017	A	1	A	B
49		m,p-Xylene	91	7.756	1.032	A	1	A	B
50		o-Xylene	91	8.128	1.081	A	1	A	B
51		Styrene	104	8.140	1.083	A	0	A	B
52	P	Bromoform	173	8.311	1.105	A	2	A	B
53		Isopropylbenzene	105	8.476	1.127	A	1	A	B
54	S	4-Bromofluorobenzene	95	8.616	1.146	A	2	A	B

55 I	1,4-Dichlorobenzene-d4	152	9.731	1.000	A	1	A	B
56	Bromobenzene	156	8.762	0.900	A	1	A	B
57 P	1,1,2,2-Tetrachloroethane	83	8.762	0.900	A	1	A	B
58	1,2,3-Trichloropropane	75	8.799	0.904	A	1	A	B
59	n-Propylbenzene	91	8.872	0.912	A	1	A	B
60	2-Chlorotoluene	126	8.951	0.920	A	1	A	B
61	4-Chlorotoluene	126	9.055	0.931	A	1	A	B
62	1,3,5-Trimethylbenzene	105	9.043	0.929	A	1	A	B
63	tert-Butylbenzene	119	9.353	0.961	A	1	A	B
64	1,2,4-Trimethylbenzene	105	9.402	0.966	A	1	A	B
65	sec-Butylbenzene	105	9.567	0.983	A	1	A	B
66	1,3-Dichlorobenzene	146	9.670	0.994	A	1	A	B
67	p-Isopropyltoluene	119	9.713	0.998	A	1	A	B
68	1,4-Dichlorobenzene	146	9.756	1.003	A	1	A	B
69	1,2-Dichlorobenzene	146	10.116	1.040	A	1	A	B
70	n-Butylbenzene	91	10.109	1.039	A	1	A	B
71	1,2-Dibromo-3-chloropropane	157	10.884	1.118	A	2	A	B
72	1,2,4-Trichlorobenzene	180	11.701	1.202	A	2	A	B
73	Hexachlorobutadiene	225	11.883	1.221	A	2	A	B
74	Naphthalene	128	11.944	1.227	A	1	A	B
75	1,2,3-Trichlorobenzene	180	12.182	1.252	L	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

M140328W.M Fri Mar 28 13:13:22 2014

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014
Response Via : Initial Calibration

Calibration Files
.2 =M0328003.d 1 =M0328004.d 2 =M0328005.d 5 =M0328006.d 10 =M0328007.d 25 =M0328009.d
50 =M0328011.d .1 =M0716005.d

		Compound	.2	1	2	5	10	25	50	.1	Avg	%RSD
		ISTD										
1)	I	Pentafluorobenzene										
2)		Dichlorodifluo...	0.731	0.674	0.745	0.721	0.732	0.902	0.866		0.767#	10.86
3)	P	Chloromethane	1.322	1.085	1.163	1.119	1.136	1.255	1.220		1.186	7.07
4)	C	Vinyl Chloride	1.043	0.912	0.981	0.959	0.988	1.068	1.043		0.999#	5.52#
5)		Bromomethane	0.556	0.485	0.468	0.441	0.450	0.468	0.455		0.475#	8.17
6)		Chloroethane	0.625	0.496	0.509	0.492	0.506	0.527	0.513		0.524#	8.82
7)		Trichlorofluor...	1.156	1.019	1.056	1.033	1.070	1.117	1.080		1.076#	4.44
8)	C	1,1-Dichloroet...	1.241	1.098	1.119	1.116	1.139	1.185	1.149		1.150#	4.28#
9)		Acetone		0.091	0.094	0.079	0.071	0.071	0.065		0.079#	15.41
10)		Iodomethane		0.538	0.633	0.703	0.753	0.828	0.787		0.707#	15.14
11)		Carbon Disulfide	1.915	1.725	1.786	1.757	1.809	1.917	1.887		1.828#	4.27
12)		Methylene Chlo...	1.192	0.974	0.974	0.934	0.942	0.966	0.942		0.989#	9.22
13)		(trans) 1,2-Di...	1.274	1.090	1.151	1.091	1.147	1.190	1.161		1.158#	5.43
14)		Methyl t-Butyl...	0.739	0.711	0.732	0.724	0.712	0.737	0.748		0.729#	1.91
15)	P	1,1-Dichloroet...	1.345	1.272	1.313	1.288	1.313	1.365	1.339		1.319	2.47
16)		Vinyl Acetate		0.614	0.569	0.542	0.518	0.545			0.558#	6.53
17)		2,2-Dichloropr...	0.870	0.833	0.840	0.814	0.843	0.864	0.832		0.842#	2.31
18)		(cis) 1,2-Dich...	1.198	1.187	1.196	1.189	1.212	1.281	1.265		1.218#	3.17
19)		2-Butanone	0.125	0.124	0.129	0.120	0.116	0.119	0.113		0.121#	4.60
20)		Bromochloromet...	0.248	0.246	0.258	0.251	0.256	0.264	0.263		0.255#	2.79
21)	C	Chloroform	1.120	1.006	1.026	1.020	1.022	1.063	1.041		1.043#	3.72#
22)		1,1,1-Trichlor...	1.045	0.986	0.979	0.971	1.000	1.040	1.016		1.005#	2.90
23)	S	Dibromofluorom...	0.432	0.452	0.466	0.464	0.455	0.460	0.459		0.455#	2.52
24)		Carbon Tetrach...	1.007	0.907	0.921	0.894	0.918	0.975	0.953		0.939#	4.33
25)		1,1-Dichloropr...	0.957	0.826	0.855	0.825	0.850	0.898	0.887		0.871#	5.40
26)		Benzene	2.426	2.214	2.226	2.215	2.261	2.360	2.336		2.291#	3.64
27)		1,2-Dichloroet...	0.629	0.625	0.641	0.627	0.635	0.651	0.634		0.634#	1.46
		ISTD										
28)	I	1,4-Difluorobenzene										
29)		Trichloroethene	0.485	0.417	0.432	0.425	0.433	0.460	0.435		0.441#	5.29
30)	C	1,2-Dichloropr...	0.380	0.396	0.404	0.399	0.397	0.420	0.421		0.403#	3.55#
31)		Dibromomethane	0.113	0.127	0.135	0.131	0.129	0.135	0.134		0.129#	6.02
32)		Bromodichlorom...	0.366	0.406	0.402	0.392	0.396	0.417	0.423		0.400#	4.69
33)		2-Chloroethyl ...		0.019	0.022	0.020	0.020	0.022	0.026		0.022#	11.46
34)		(cis) 1,3-Dich...	0.357	0.379	0.399	0.410	0.417	0.457	0.460		0.411#	9.25
35)		Methyl Isobuty...	0.150	0.133	0.150	0.144	0.139	0.152	0.162		0.147#	6.45
36)	S	Toluene-d8	1.157	1.169	1.180	1.181	1.176	1.184	1.201		1.178#	1.16
37)	C	Toluene	1.762	1.581	1.569	1.556	1.567	1.668	1.689		1.628#	4.88#

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :

38)	I	Chlorobenzene-d5	ISTD								
39)		(trans) 1,3-Di...	0.329	0.326	0.342	0.341	0.362	0.382	0.382	0.352#	6.74
40)		1,1,2-Trichlor...	0.258	0.200	0.201	0.200	0.200	0.213	0.208	0.212#	10.00
41)		Tetrachloroethene	0.585	0.541	0.533	0.515	0.537	0.563	0.545	0.546#	4.10
42)		1,3-Dichloropr...	0.363	0.346	0.364	0.369	0.369	0.371	0.386	0.377	0.368#	3.43
43)		2-Hexanone	0.142	0.125	0.116	0.123	0.117	0.132	0.130	0.126#	7.09
44)		Dibromochlorom...	0.253	0.266	0.266	0.270	0.273	0.293	0.293	0.273#	5.38
45)		1,2-Dibromoethane	0.177	0.186	0.186	0.186	0.183	0.193	0.185	0.185#	2.57
46)	P	Chlorobenzene	1.255	1.079	1.070	1.047	1.080	1.139	1.123	1.113	6.29
47)		1,1,1,2-Tetrac...	0.341	0.354	0.343	0.353	0.362	0.379	0.379	0.359#	4.32
48)	C	Ethylbenzene	2.325	1.997	2.059	2.064	2.191	2.361	2.310	2.186#	6.78#
49)		m,p-Xylene	1.605	1.490	1.545	1.591	1.662	1.789	1.770	1.636#	6.82
50)		o-Xylene	1.494	1.366	1.422	1.447	1.507	1.624	1.603	1.495#	6.27
51)		Styrene	1.023	0.990	1.056	1.103	1.149	1.243	1.236	1.114#	8.97
52)	P	Bromoform	0.125	0.127	0.132	0.139	0.140	0.153	0.158	0.139	9.15
53)		Isopropylbenzene	1.831	1.673	1.754	1.804	1.913	2.064	2.019	1.865#	7.57
54)	S	4-Bromofluorob...	0.413	0.435	0.446	0.452	0.454	0.456	0.452	0.444#	3.48
55)	I	1,4-Dichlorobenzen...	ISTD								
56)		Bromobenzene	1.034	0.877	0.855	0.847	0.875	0.937	0.909	0.905#	7.16
57)	P	1,1,2,2-Tetrac...	0.459	0.445	0.425	0.427	0.414	0.440	0.458	0.438	3.93
58)		1,2,3-Trichlor...	0.352	0.338	0.369	0.338	0.335	0.349	0.341	0.346#	3.40
59)		n-Propylbenzene	6.049	4.935	4.930	4.942	5.346	5.647	5.494	5.335#	8.07
60)		2-Chlorotoluene	1.149	0.992	0.967	0.946	1.025	1.084	1.032	1.028#	6.82
61)		4-Chlorotoluene	1.079	0.964	0.958	0.954	1.011	1.056	1.040	1.009#	5.06
62)		1,3,5-Trimethy...	3.976	3.290	3.584	3.576	3.875	4.120	4.024	3.778#	7.96
63)		tert-Butylbenzene	3.231	2.588	2.781	2.779	3.103	3.224	3.128	2.977#	8.60
64)		1,2,4-Trimethy...	3.625	3.172	3.266	3.380	3.588	3.771	3.711	3.502#	6.57
65)		sec-Butylbenzene	4.557	3.886	3.983	4.040	4.421	4.650	4.517	4.293#	7.30
66)		1,3-Dichlorobe...	1.683	1.484	1.540	1.486	1.544	1.611	1.593	1.563#	4.57
67)		p-Isopropyltol...	3.569	2.941	3.184	3.180	3.473	3.704	3.617	3.381#	8.34
68)		1,4-Dichlorobe...	1.842	1.506	1.586	1.565	1.606	1.679	1.655	1.634#	6.61
69)		1,2-Dichlorobe...	1.147	1.061	1.102	1.111	1.127	1.195	1.194	1.134#	4.31
70)		n-Butylbenzene	3.362	2.757	2.828	2.927	3.122	3.314	3.297	3.086#	8.09
71)		1,2-Dibromo-3-...		0.040	0.049	0.048	0.050	0.056	0.056	0.050#	11.77
72)		1,2,4-Trichlor...	0.294	0.266	0.307	0.323	0.312	0.332	0.356	0.313#	9.10
73)		Hexachlorobuta...	0.353	0.269	0.277	0.291	0.281	0.290	0.290	0.293#	9.51
74)		Naphthalene		0.325	0.338	0.368	0.366	0.397	0.439	0.372#	11.18
75)		1,2,3-Trichlor...	0.123	0.149	0.177	0.203	0.199	0.196	0.211	0.180#	18.07

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	485934	10.00 ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	740470	10.00 ppb		0.00
38) Chlorobenzene-d5	7.518	117	555715	10.00 ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	198284	10.00 ppb		0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.293	111	209890	9.62 ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 96.20%			
36) Toluene-d8	6.220	98	856932	9.84 ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 98.40%			
54) 4-Bromofluorobenzene	8.616	95	229303	9.00 ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 90.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	7107	0.19 ppb		100
3) Chloromethane	1.343	50	12848	0.22 ppb		100
4) Vinyl Chloride	1.428	62	10132	0.21 ppb		92
5) Bromomethane	1.684	96	5406	0.24 ppb		94
6) Chloroethane	1.763	64	6077	0.24 ppb		98
7) Trichlorofluoromethane	1.977	101	11235	0.22 ppb		97
8) 1,1-Dichloroethene	2.416	61	12064	0.22 ppb		99
9) ~~Acetone~~	2.465	43	3046	0.32 ppb		92
10) ~~Iodomethane~~	2.538	142	4255	0.53 ppb		96
11) Carbon Disulfide	2.593	76	18609	0.21 ppb		95
12) Methylene Chloride	2.824	49	11589	0.24 ppb		97
13) (trans) 1,2-Dichloroet...	3.056	61	12377	0.23 ppb		99
14) Methyl t-Butyl Ether	3.068	73	7179	0.20 ppb	#	88
15) 1,1-Dichloroethane	3.410	63	13071	0.21 ppb		96
16) ~~Vinyl Acetate~~	3.458	43	7482	0.66 ppb	#	81
17) 2,2-Dichloropropane	3.891	77	8459	0.20 ppb	#	78
18) (cis) 1,2-Dichloroethene	3.897	61	11646	0.20 ppb		96
19) 2-Butanone	3.916	43	1217	0.21 ppb	#	52
20) Bromochloromethane	4.092	130	2414	0.20 ppb		97
21) Chloroform	4.165	83	10889	0.22 ppb		98
22) 1,1,1-Trichloroethane	4.312	97	10155	0.21 ppb	#	1
24) Carbon Tetrachloride	4.452	117	9784	0.22 ppb		98
25) 1,1-Dichloropropene	4.452	75	9303	0.22 ppb		95
26) Benzene	4.629	78	23574	0.22 ppb		97
27) 1,2-Dichloroethane	4.641	62	6112	0.20 ppb		94
29) Trichloroethene	5.171	130	7176	0.23 ppb		90
30) 1,2-Dichloropropane	5.360	63	5631	0.19 ppb		95
31) Dibromomethane	5.458	174	1675	0.17 ppb	#	91
32) Bromodichloromethane	5.598	83	5416	0.18 ppb		91
33) ~~2-Chloroethyl Vinyl Ether~~	5.860	63	266	2.33 ppb	#	66
34) (cis) 1,3-Dichloropropene	5.982	75	5288	0.17 ppb		97
35) Methyl Isobutyl Ketone	6.122	43	2224	0.21 ppb	#	86
37) Toluene	6.275	91	26096	0.22 ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	3652	0.19 ppb		95
40) 1,1,2-Trichloroethane	6.634	97	2870	0.25 ppb	#	81
41) Tetrachloroethene	6.763	166	6500	0.21 ppb		92
42) 1,3-Dichloropropane	6.787	76	4030	0.20 ppb		90
43) 2-Hexanone	6.866	43	1575	0.23 ppb	#	69
44) Dibromochloromethane	6.988	129	2814	0.19 ppb		95

SP 3-28-14

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	1962	0.20	ppb		100
46) Chlorobenzene	7.543	112	13952	0.23	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	3793	0.19	ppb		84
48) Ethylbenzene	7.646	91	25838	0.21	ppb		100
49) m,p-Xylene	7.756	91	35667	0.38	ppb		97
50) o-Xylene	8.128	91	16600	0.19	ppb		100
51) Styrene	8.140	104	11365	0.18	ppb		100
52) Bromoform	8.311	173	1384	0.18	ppb		93
53) Isopropylbenzene	8.476	105	20353	0.19	ppb		96
56) Bromobenzene	8.762	156	4101	0.24	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	1819	0.22	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	1394	0.22	ppb	#	100
59) n-Propylbenzene	8.872	91	23987	0.24	ppb		96
60) 2-Chlorotoluene	8.951	126	4557	0.23	ppb		98
61) 4-Chlorotoluene	9.055	126	4278	0.22	ppb		96
62) 1,3,5-Trimethylbenzene	9.043	105	15766	0.21	ppb		96
63) tert-Butylbenzene	9.353	119	12815	0.22	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	14377	0.20	ppb		97
65) sec-Butylbenzene	9.567	105	18071	0.21	ppb		96
66) 1,3-Dichlorobenzene	9.670	146	6674	0.21	ppb		100
67) p-Isopropyltoluene	9.713	119	14152	0.20	ppb		98
68) 1,4-Dichlorobenzene	9.756	146	7304	0.22	ppb		92
69) 1,2-Dichlorobenzene	10.116	146	4547	0.19	ppb		99
70) n-Butylbenzene	10.109	91	13331	0.20	ppb		99
72) 1,2,4-Trichlorobenzene	11.707	180	1167	0.10	ppb		93
73) Hexachlorobutadiene	11.877	225	1401	0.12	ppb		95
74) Naphthalene	11.944	128	1039	0.61	ppb	#	72
75) 1,2,3-Trichlorobenzene	12.188	180	489	0.21	ppb	#	67

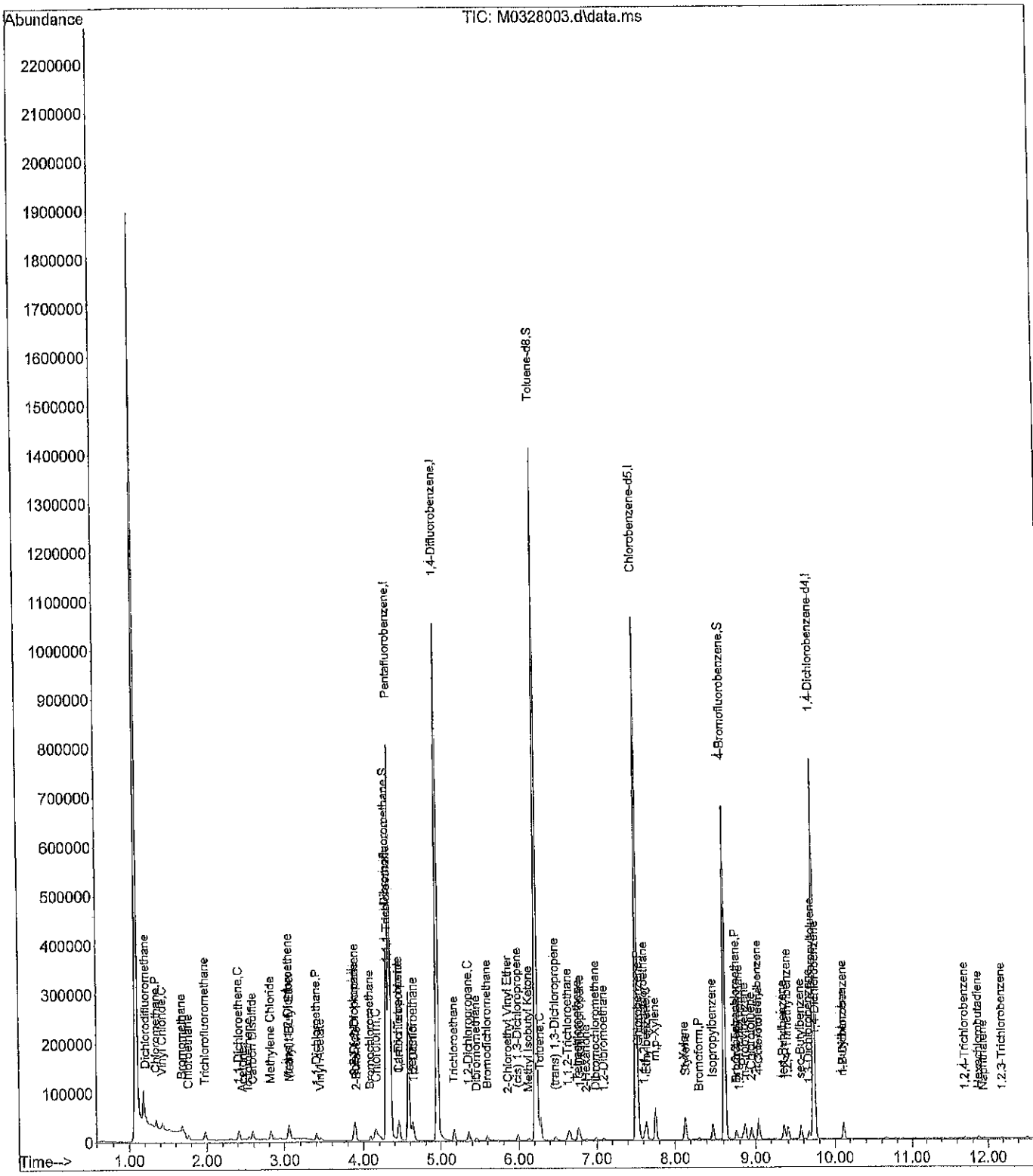
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SD 3.887M

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	481933	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	739712	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	582356	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	231509	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	217611	10.05	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.50%			
36) Toluene-d8	6.220	98	864840	9.94	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.40%			
54) 4-Bromofluorobenzene	8.622	95	253379	9.49	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.90%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.208	85	32485	0.86	ppb	98
3) Chloromethane	1.343	50	52278	0.91	ppb	94
4) Vinyl Chloride	1.428	62	43937	0.93	ppb	97
5) Bromomethane	1.684	96	23394	1.06	ppb	100
6) Chloroethane	1.769	64	23889	0.96	ppb	100
7) Trichlorofluoromethane	1.977	101	49091	0.95	ppb	97
8) 1,1-Dichloroethene	2.416	61	52907	0.97	ppb	100
9) Acetone	2.470	43	4405	0.76	ppb	99
10) Iodomethane	2.537	142	25915	1.10	ppb	95
11) Carbon Disulfide	2.592	76	83153	0.97	ppb	100
12) Methylene Chloride	2.824	49	46955	0.99	ppb	100
13) (trans) 1,2-Dichloroet...	3.056	61	52507	0.97	ppb	97
14) Methyl t-Butyl Ether	3.068	73	34289	0.98	ppb	96
15) 1,1-Dichloroethane	3.409	63	61308	0.98	ppb	99
16) Vinyl Acetate	3.458	43	29613	1.27	ppb	98
17) 2,2-Dichloropropane	3.891	77	40125	0.98	ppb	97
18) (cis) 1,2-Dichloroethene	3.897	61	57200	0.99	ppb	99
19) 2-Butanone	3.921	43	5999	1.04	ppb	92
20) Bromochloromethane	4.098	130	11861	0.97	ppb	99
21) Chloroform	4.165	83	48474	0.99	ppb	99
22) 1,1,1-Trichloroethane	4.318	97	47516	0.98	ppb #	1
24) Carbon Tetrachloride	4.458	117	43733	0.97	ppb	94
25) 1,1-Dichloropropene	4.452	75	39817	0.96	ppb	97
26) Benzene	4.629	78	106694	0.99	ppb	99
27) 1,2-Dichloroethane	4.641	62	30108	1.00	ppb	99
29) Trichloroethene	5.171	130	30865	0.98	ppb	99
30) 1,2-Dichloropropane	5.360	63	29302	0.98	ppb	100
31) Dibromomethane	5.464	174	9426	0.98	ppb	96
32) Bromodichloromethane	5.598	83	30058	1.02	ppb	97
33) 2-Chloroethyl Vinyl Ether	5.860	63	1418	3.82	ppb	99
34) (cis) 1,3-Dichloropropene	5.982	75	28003	0.90	ppb	98
35) Methyl Isobutyl Ketone	6.122	43	9833	0.91	ppb	97
37) Toluene	6.275	91	116964	0.97	ppb	97
39) (trans) 1,3-Dichloropr...	6.470	75	18996	0.93	ppb	96
40) 1,1,2-Trichloroethane	6.634	97	11672	0.96	ppb	94
41) Tetrachloroethene	6.768	166	31504	0.98	ppb	97
42) 1,3-Dichloropropane	6.787	76	20143	0.94	ppb	99
43) 2-Hexanone	6.866	43	7271	1.02	ppb #	92
44) Dibromochloromethane	6.988	129	15481	0.97	ppb	95

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

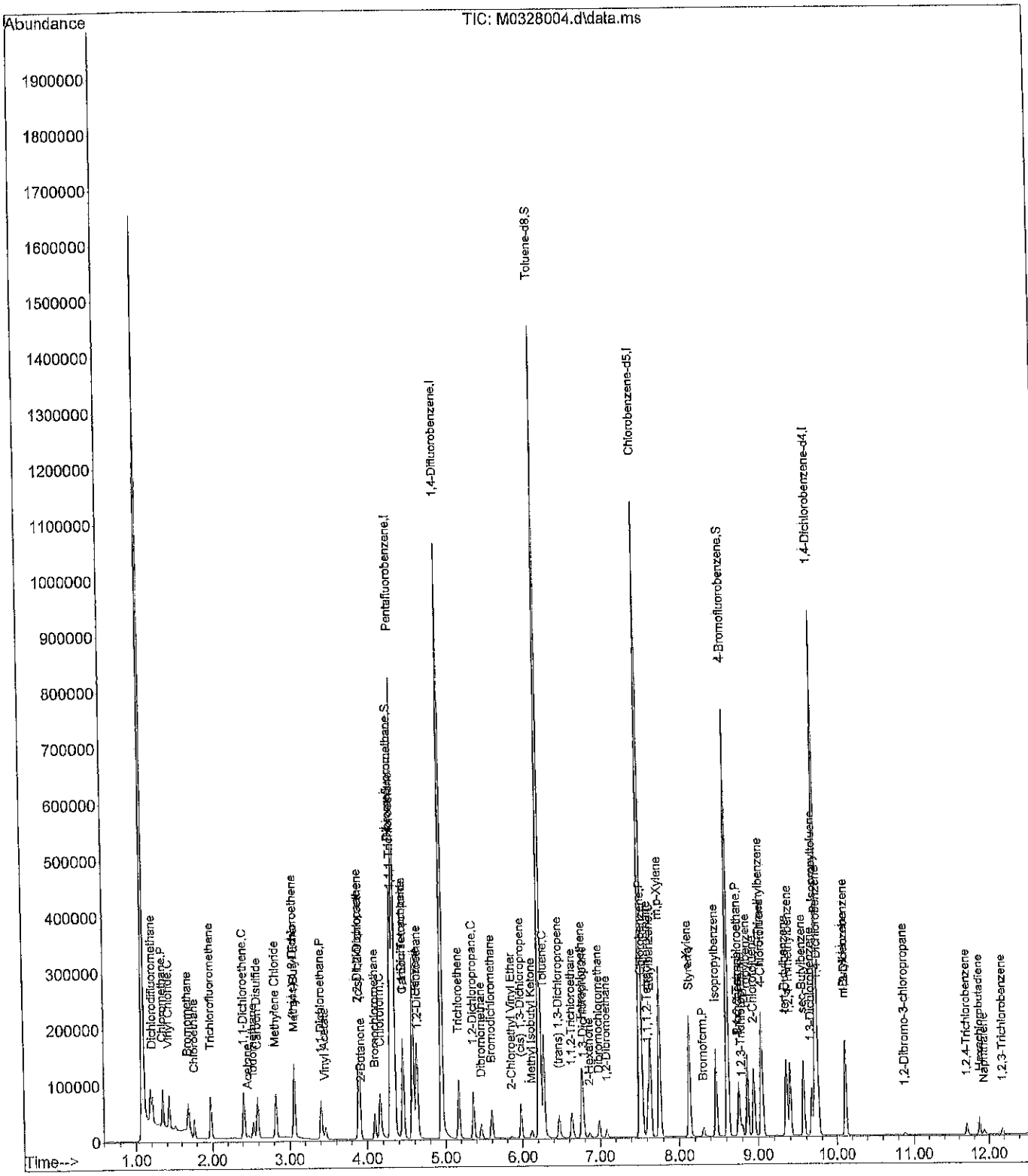
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.091	107	10813	1.03	ppb		89
46) Chlorobenzene	7.543	112	62839	0.97	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	20602	0.97	ppb		97
48) Ethylbenzene	7.646	91	116277	0.89	ppb		100
49) m,p-Xylene	7.756	91	173593	1.77	ppb		100
50) o-Xylene	8.128	91	79577	0.88	ppb		99
51) Styrene	8.140	104	57652	0.86	ppb		100
52) Bromoform	8.311	173	7371	0.89	ppb		96
53) Isopropylbenzene	8.475	105	97419	0.85	ppb		98
56) Bromobenzene	8.762	156	20310	1.04	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	10308	1.07	ppb		93
58) 1,2,3-Trichloropropane	8.798	75	7814	1.06	ppb	#	100
59) n-Propylbenzene	8.872	91	114247	0.97	ppb		99
60) 2-Chlorotoluene	8.951	126	22971	1.01	ppb		99
61) 4-Chlorotoluene	9.055	126	22328	0.99	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	76170	0.87	ppb		99
63) tert-Butylbenzene	9.353	119	59923	0.88	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	73440	0.87	ppb		98
65) sec-Butylbenzene	9.567	105	89955	0.89	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	34360	0.92	ppb		100
67) p-Isopropyltoluene	9.713	119	68086	0.82	ppb		97
68) 1,4-Dichlorobenzene	9.756	146	34860	0.89	ppb		94
69) 1,2-Dichlorobenzene	10.115	146	24567	0.87	ppb		100
70) n-Butylbenzene	10.109	91	63817	0.81	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.883	157	932	0.72	ppb	#	64
72) 1,2,4-Trichlorobenzene	11.706	180	6168	0.46	ppb		90
73) Hexachlorobutadiene	11.883	225	6218	0.47	ppb		97
74) Naphthalene	11.944	128	7514	0.99	ppb	#	94
75) 1,2,3-Trichlorobenzene	12.188	180	3448	0.52	ppb		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	479547	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	741239	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	592815	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	240183	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	223417	10.37	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.70%				
36) Toluene-d8	6.220	98	874445	10.03	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.30%				
54) 4-Bromofluorobenzene	8.622	95	264503	9.74	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	71435	1.89	ppb		100
3) Chloromethane	1.343	50	111552	1.95	ppb		100
4) Vinyl Chloride	1.428	62	94040	2.00	ppb		99
5) Bromomethane	1.690	96	44871	2.05	ppb		99
6) Chloroethane	1.769	64	48789	1.97	ppb		96
7) Trichlorofluoromethane	1.977	101	101236	1.97	ppb		99
8) 1,1-Dichloroethene	2.416	61	107339	1.98	ppb		100
9) Acetone	2.470	43	9060	2.24	ppb		96
10) Iodomethane	2.538	142	60687	2.01	ppb		99
11) Carbon Disulfide	2.592	76	171279	2.00	ppb		97
12) Methylene Chloride	2.824	49	93388	1.98	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	110387	2.06	ppb		100
14) Methyl t-Butyl Ether	3.068	73	70253	2.02	ppb		98
15) 1,1-Dichloroethane	3.409	63	125922	2.02	ppb		98
16) Vinyl Acetate	3.458	43	54537	1.97	ppb		98
17) 2,2-Dichloropropane	3.891	77	80592	1.97	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	114722	1.99	ppb		99
19) 2-Butanone	3.921	43	12367	2.16	ppb		91
20) Bromochloromethane	4.098	130	24764	2.04	ppb		97
21) Chloroform	4.165	83	98372	2.01	ppb		98
22) 1,1,1-Trichloroethane	4.318	97	93941	1.95	ppb	#	1
24) Carbon Tetrachloride	4.458	117	88301	1.97	ppb		100
25) 1,1-Dichloropropene	4.452	75	82043	1.99	ppb		100
26) Benzene	4.629	78	213449	1.99	ppb		100
27) 1,2-Dichloroethane	4.641	62	61512	2.06	ppb		99
29) Trichloroethene	5.171	130	64112	2.02	ppb		93
30) 1,2-Dichloropropane	5.360	63	59895	2.01	ppb		100
31) Dibromomethane	5.464	174	20052	2.08	ppb		99
32) Bromodichloromethane	5.598	83	59547	2.02	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	3284	6.24	ppb		100
34) (cis) 1,3-Dichloropropene	5.982	75	59196	1.90	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	22165	2.05	ppb		98
37) Toluene	6.275	91	232630	1.92	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	40523	1.94	ppb		100
40) 1,1,2-Trichloroethane	6.634	97	23818	1.92	ppb		94
41) Tetrachloroethene	6.768	166	63251	1.94	ppb		98
42) 1,3-Dichloropropane	6.787	76	43185	1.98	ppb		99
43) 2-Hexanone	6.866	43	13779	1.89	ppb		99
44) Dibromochloromethane	6.988	129	31574	1.95	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

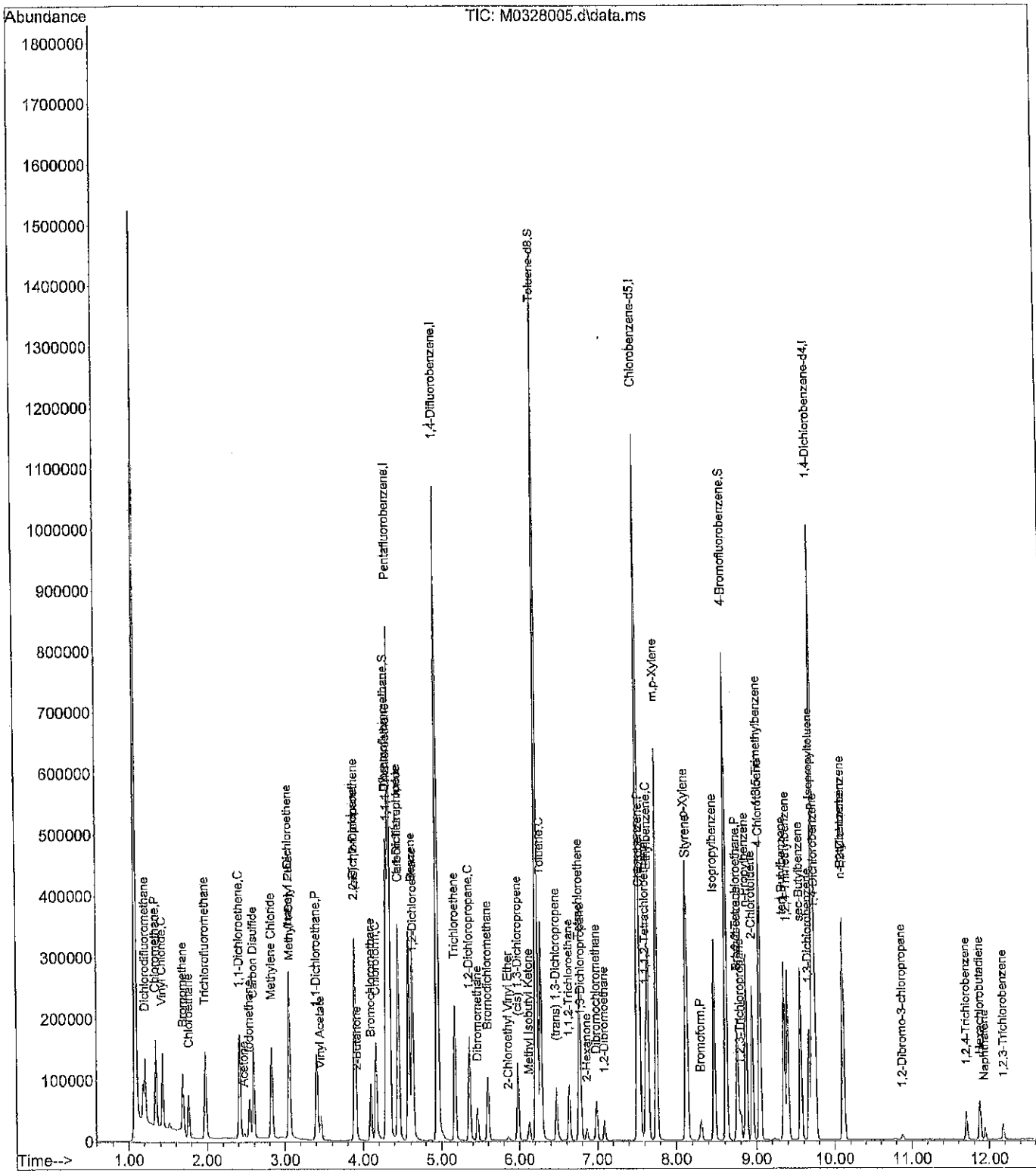
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	22108	2.07	ppb		94
46) Chlorobenzene	7.543	112	126905	1.93	ppb		98
47) 1,1,1,2-Tetrachloroethane	7.616	133	40634	1.89	ppb		97
48) Ethylbenzene	7.646	91	244080	1.84	ppb		99
49) m,p-Xylene	7.756	91	366249	3.67	ppb		100
50) o-Xylene	8.128	91	168553	1.82	ppb		99
51) Styrene	8.140	104	125222	1.84	ppb		100
52) Bromoform	8.311	173	15623	1.86	ppb		98
53) Isopropylbenzene	8.475	105	207918	1.79	ppb		99
56) Bromobenzene	8.762	156	41070	2.02	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	20399	2.05	ppb		97
58) 1,2,3-Trichloropropane	8.799	75	17704	2.32	ppb	#	100
59) n-Propylbenzene	8.872	91	236825	1.94	ppb		99
60) 2-Chlorotoluene	8.951	126	46452	1.98	ppb		97
61) 4-Chlorotoluene	9.055	126	46002	1.98	ppb		95
62) 1,3,5-Trimethylbenzene	9.042	105	172160	1.90	ppb		100
63) tert-Butylbenzene	9.353	119	133577	1.88	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	156865	1.80	ppb		98
65) sec-Butylbenzene	9.567	105	191336	1.83	ppb		100
66) 1,3-Dichlorobenzene	9.670	146	73967	1.92	ppb		96
67) p-Isopropyltoluene	9.713	119	152932	1.78	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	76190	1.87	ppb		96
69) 1,2-Dichlorobenzene	10.115	146	52952	1.80	ppb		99
70) n-Butylbenzene	10.109	91	135827	1.67	ppb		98
71) 1,2-Dibromo-3-chloropr...	10.883	157	2368	1.76	ppb		98
72) 1,2,4-Trichlorobenzene	11.706	180	14738	1.05	ppb		94
73) Hexachlorobutadiene	11.883	225	13288	0.97	ppb		99
74) Naphthalene	11.944	128	16224	1.48	ppb		97
75) 1,2,3-Trichlorobenzene	12.188	180	8510	1.04	ppb		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	487403	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	747722	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	596122	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	250793	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	226293	10.34	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.40%				
36) Toluene-d8	6.220	98	883353	10.04	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.40%				
54) 4-Bromofluorobenzene	8.616	95	269266	9.86	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	175706	4.58	ppb		100
3) Chloromethane	1.343	50	272665	4.68	ppb		99
4) Vinyl Chloride	1.428	62	233677	4.89	ppb		100
5) Bromomethane	1.684	96	107522	4.84	ppb		99
6) Chloroethane	1.770	64	119788	4.76	ppb		100
7) Trichlorofluoromethane	1.977	101	251859	4.81	ppb		99
8) 1,1-Dichloroethene	2.416	61	271961	4.94	ppb		98
9) Acetone	2.471	43	19243	5.36	ppb		100
10) Iodomethane	2.538	142	171354	4.82	ppb		99
11) Carbon Disulfide	2.593	76	428232	4.92	ppb		100
12) Methylene Chloride	2.824	49	227594	4.76	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	265907	4.87	ppb		98
14) Methyl t-Butyl Ether	3.068	73	176485	4.99	ppb		98
15) 1,1-Dichloroethane	3.409	63	313941	4.94	ppb		98
16) Vinyl Acetate	3.458	43	132036	4.05	ppb		100
17) 2,2-Dichloropropane	3.891	77	198435	4.78	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	289717	4.95	ppb		100
19) 2-Butanone	3.922	43	29280	5.04	ppb		95
20) Bromochloromethane	4.098	130	61061	4.94	ppb		97
21) Chloroform	4.165	83	248538	5.00	ppb		100
22) 1,1,1-Trichloroethane	4.318	97	236699	4.83	ppb	#	48
24) Carbon Tetrachloride	4.458	117	217779	4.78	ppb		99
25) 1,1-Dichloropropene	4.452	75	201088	4.81	ppb		99
26) Benzene	4.629	78	539722	4.94	ppb		100
27) 1,2-Dichloroethane	4.641	62	152728	5.02	ppb		100
29) Trichloroethene	5.171	130	158883	4.97	ppb		97
30) 1,2-Dichloropropane	5.360	63	149194	4.96	ppb		98
31) Dibromomethane	5.464	174	48876	5.02	ppb		96
32) Bromodichloromethane	5.598	83	146557	4.93	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	7478	11.60	ppb	#	90
34) (cis) 1,3-Dichloropropene	5.982	75	153320	4.87	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	53853	4.94	ppb		96
37) Toluene	6.275	91	581598	4.77	ppb		98
39) (trans) 1,3-Dichloropr...	6.470	75	101688	4.84	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	59584	4.77	ppb		96
41) Tetrachloroethene	6.769	166	153550	4.68	ppb		99
42) 1,3-Dichloropropane	6.787	76	109881	5.00	ppb		100
43) 2-Hexanone	6.866	43	36571	4.99	ppb	#	97
44) Dibromochloromethane	6.988	129	80368	4.94	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

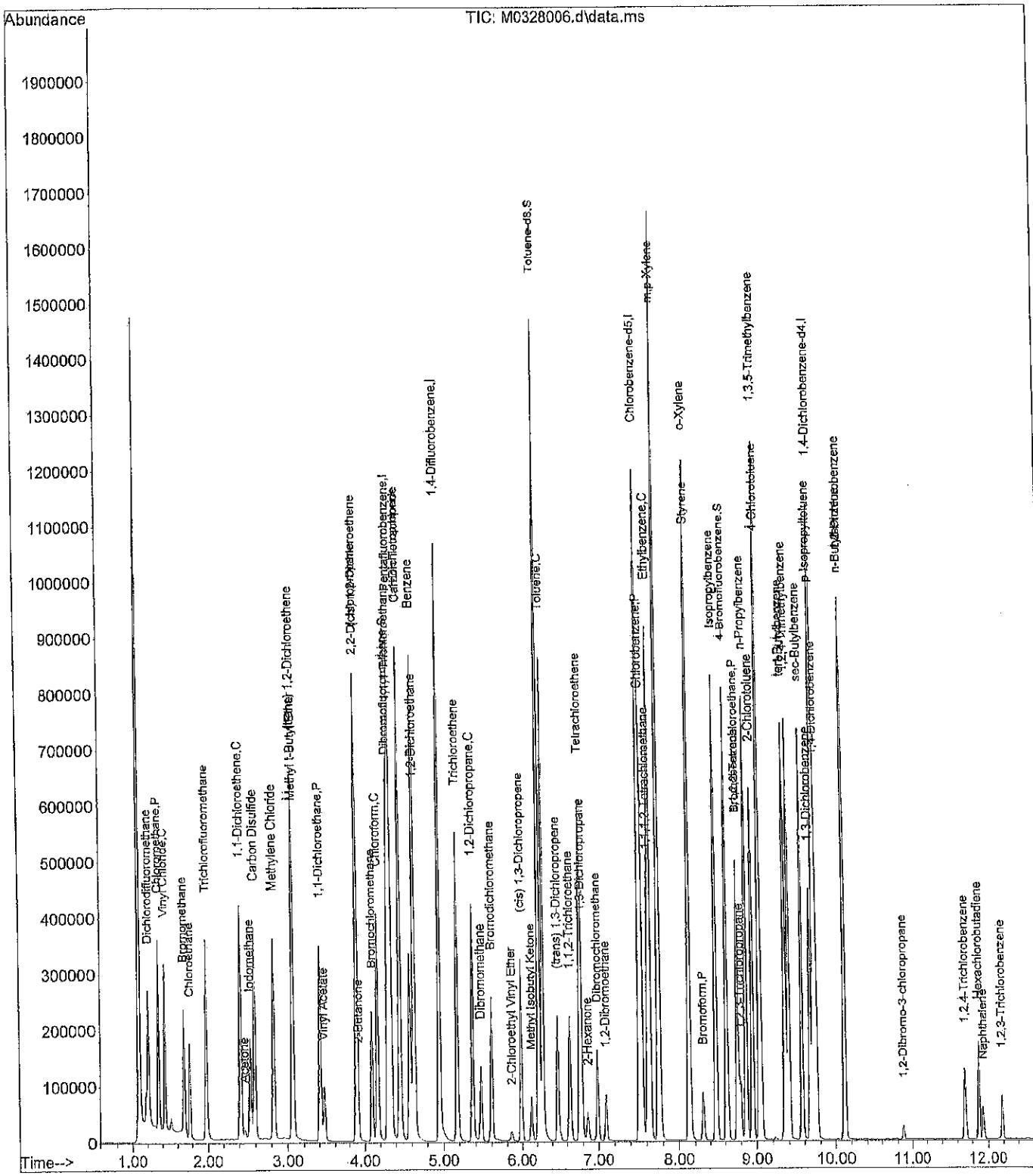
Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	1,2-Dibromoethane	7.092	107	55408	5.15	ppb		94
46)	Chlorobenzene	7.543	112	312120	4.72	ppb		99
47)	1,1,1,2-Tetrachloroethane	7.616	133	105314	4.86	ppb		100
48)	Ethylbenzene	7.646	91	615237	4.61	ppb		100
49)	m,p-Xylene	7.756	91	948174	9.45	ppb		100
50)	o-Xylene	8.128	91	431278	4.64	ppb		99
51)	Styrene	8.140	104	328797	4.81	ppb		100
52)	Bromoform	8.311	173	41308	4.89	ppb		97
53)	Isopropylbenzene	8.476	105	537723	4.60	ppb		100
56)	Bromobenzene	8.762	156	106237	5.00	ppb		96
57)	1,1,2,2-Tetrachloroethane	8.762	83	53508	5.15	ppb		95
58)	1,2,3-Trichloropropane	8.799	75	42362	5.32	ppb	#	100
59)	n-Propylbenzene	8.872	91	619715	4.86	ppb		99
60)	2-Chlorotoluene	8.951	126	118651	4.84	ppb		99
61)	4-Chlorotoluene	9.055	126	119653	4.92	ppb		100
62)	1,3,5-Trimethylbenzene	9.043	105	448413	4.74	ppb		99
63)	tert-Butylbenzene	9.353	119	348521	4.70	ppb		99
64)	1,2,4-Trimethylbenzene	9.402	105	423815	4.65	ppb		100
65)	sec-Butylbenzene	9.567	105	506584	4.64	ppb		100
66)	1,3-Dichlorobenzene	9.670	146	186299	4.62	ppb		98
67)	p-Isopropyltoluene	9.713	119	398736	4.45	ppb		98
68)	1,4-Dichlorobenzene	9.756	146	196227	4.62	ppb		100
69)	1,2-Dichlorobenzene	10.115	146	139284	4.54	ppb		98
70)	n-Butylbenzene	10.109	91	366974	4.31	ppb		100
71)	1,2-Dibromo-3-chloropr...	10.884	157	6040	4.30	ppb		92
72)	1,2,4-Trichlorobenzene	11.707	180	40513	2.76	ppb		97
73)	Hexachlorobutadiene	11.883	225	36435	2.56	ppb		98
74)	Naphthalene	11.944	128	46161	3.10	ppb		97
75)	1,2,3-Trichlorobenzene	12.182	180	25509	2.71	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	489227	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	759757	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	599575	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246718	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	222542	10.13	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 101.30%				
36) Toluene-d8	6.220	98	893363	10.00	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.00%				
54) 4-Bromofluorobenzene	8.616	95	271986	9.90	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	358326	9.31	ppb		100
3) Chloromethane	1.343	50	555937	9.51	ppb		99
4) Vinyl Chloride	1.428	62	483276	10.07	ppb		100
5) Bromomethane	1.690	96	219911	9.85	ppb		100
6) Chloroethane	1.770	64	247386	9.79	ppb		100
7) Trichlorofluoromethane	1.977	101	523334	9.97	ppb		100
8) 1,1-Dichloroethene	2.416	61	557386	10.08	ppb		99
9) Acetone	2.471	43	34774	10.16	ppb		99
10) Iodomethane	2.538	142	368612	9.85	ppb		99
11) Carbon Disulfide	2.593	76	884927	10.14	ppb		99
12) Methylene Chloride	2.824	49	460832	9.60	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	560950	10.24	ppb		100
14) Methyl t-Butyl Ether	3.068	73	348111	9.80	ppb		99
15) 1,1-Dichloroethane	3.410	63	642292	10.08	ppb		100
16) Vinyl Acetate	3.458	43	253649	7.34	ppb		99
17) 2,2-Dichloropropane	3.897	77	412258	9.89	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	592869	10.09	ppb		99
19) 2-Butanone	3.922	43	56987	9.78	ppb		98
20) Bromochloromethane	4.098	130	125464	10.11	ppb		99
21) Chloroform	4.165	83	500093	10.03	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	488995	9.94	ppb		98
24) Carbon Tetrachloride	4.458	117	448921	9.82	ppb		98
25) 1,1-Dichloropropene	4.452	75	415631	9.89	ppb		99
26) Benzene	4.629	78	1106258	10.09	ppb		99
27) 1,2-Dichloroethane	4.641	62	310436	10.17	ppb		100
29) Trichloroethene	5.171	130	328989	10.12	ppb		99
30) 1,2-Dichloropropane	5.360	63	301712	9.86	ppb		99
31) Dibromomethane	5.464	174	97928	9.89	ppb		99
32) Bromodichloromethane	5.598	83	300904	9.96	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	14914	20.86	ppb	#	88
34) (cis) 1,3-Dichloropropene	5.982	75	316852	9.91	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	105947	9.57	ppb		99
37) Toluene	6.275	91	1190855	9.61	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	217027	10.28	ppb		98
40) 1,1,2-Trichloroethane	6.635	97	120206	9.58	ppb		97
41) Tetrachloroethene	6.769	166	321992	9.76	ppb		99
42) 1,3-Dichloropropane	6.787	76	222149	10.05	ppb		99
43) 2-Hexanone	6.866	43	70181	9.53	ppb		98
44) Dibromochloromethane	6.988	129	163728	10.00	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

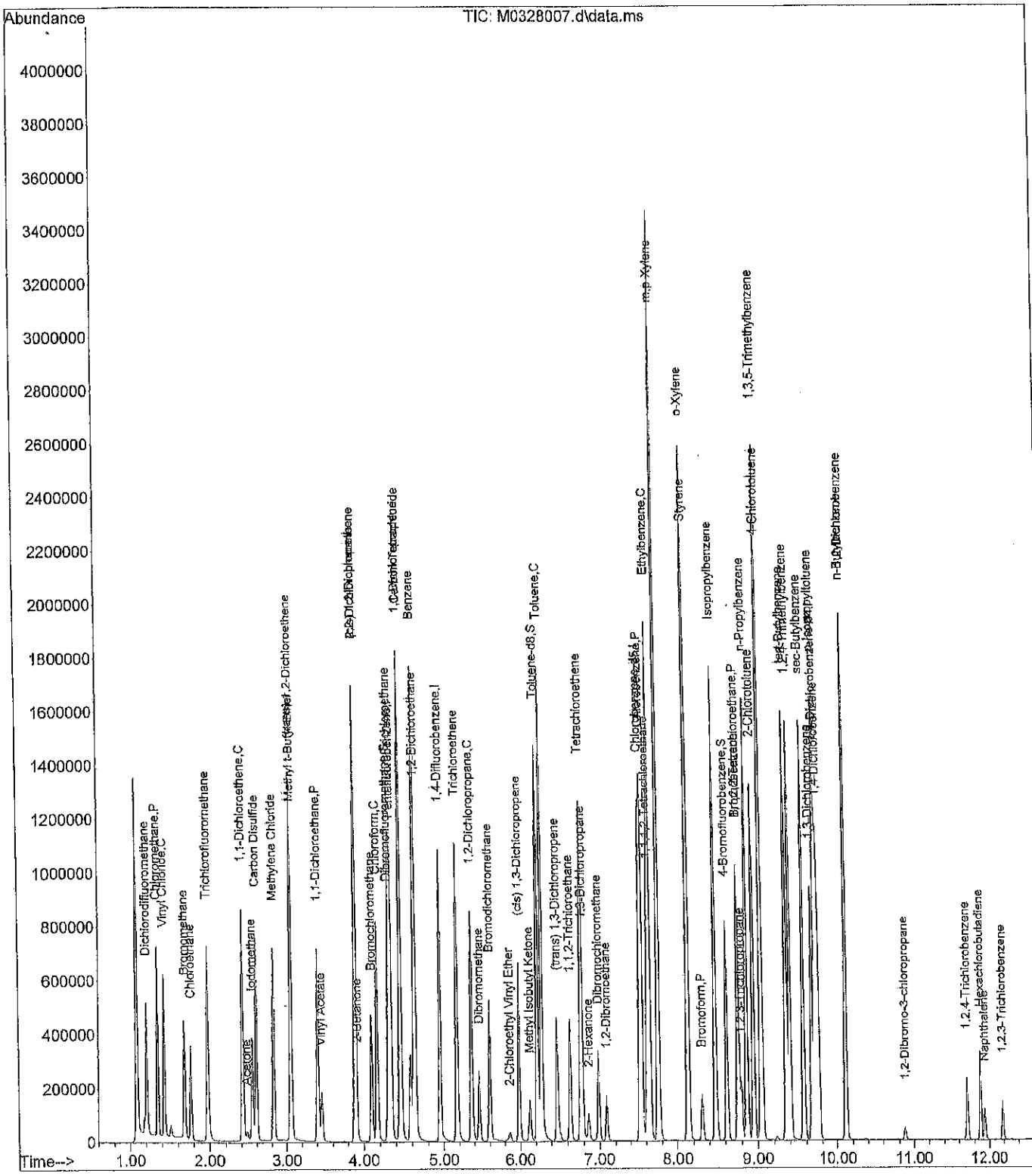
Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	109725	10.14	ppb		97
46) Chlorobenzene	7.543	112	647533	9.74	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	217287	9.97	ppb		98
48) Ethylbenzene	7.646	91	1313400	9.79	ppb		100
49) m,p-Xylene	7.756	91	1993585	19.75	ppb		99
50) o-Xylene	8.128	91	903632	9.66	ppb		98
51) Styrene	8.140	104	688761	10.02	ppb		100
52) Bromoform	8.311	173	83704	9.85	ppb		97
53) Isopropylbenzene	8.476	105	1147125	9.75	ppb		100
56) Bromobenzene	8.762	156	215852	10.33	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	102118	9.98	ppb		99
58) 1,2,3-Trichloropropane	8.799	75	82731	10.56	ppb	#	100
59) n-Propylbenzene	8.872	91	1318888	10.52	ppb		99
60) 2-Chlorotoluene	8.951	126	252805	10.48	ppb		98
61) 4-Chlorotoluene	9.055	126	249463	10.43	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	956130	10.27	ppb		99
63) tert-Butylbenzene	9.353	119	765683	10.50	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	885124	9.88	ppb		99
65) sec-Butylbenzene	9.567	105	1090861	10.15	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	380986	9.60	ppb		99
67) p-Isopropyltoluene	9.713	119	856914	9.72	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	396253	9.49	ppb		99
69) 1,2-Dichlorobenzene	10.116	146	278161	9.21	ppb		99
70) n-Butylbenzene	10.109	91	770172	9.19	ppb		100
71) 1,2-Dibromo-3-chloropr...	10.884	157	12386	8.97	ppb		87
72) 1,2,4-Trichlorobenzene	11.701	180	77070	5.34	ppb		99
73) Hexachlorobutadiene	11.883	225	69390	4.95	ppb		98
74) Naphthalene	11.944	128	90183	5.61	ppb		98
75) 1,2,3-Trichlorobenzene	12.182	180	49016	5.15	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	497601	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	768052	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	607515	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	252975	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	229055	10.25	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.50%				
36) Toluene-d8	6.220	98	909694	10.07	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.70%				
54) 4-Bromofluorobenzene	8.622	95	277129	9.95	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.50%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	1121507	28.64	ppb		99
3) Chloromethane	1.343	50	1561206	26.25	ppb		100
4) Vinyl Chloride	1.428	62	1328160	27.20	ppb		100
5) Bromomethane	1.684	96	581881	25.64	ppb		99
6) Chloroethane	1.770	64	655545	25.52	ppb		99
7) Trichlorofluoromethane	1.977	101	1389716	26.02	ppb		99
8) 1,1-Dichloroethene	2.416	61	1474120	26.22	ppb		99
9) Acetone	2.471	43	87736	26.13	ppb		98
10) Iodomethane	2.538	142	1029759	26.31	ppb		98
11) Carbon Disulfide	2.593	76	2384649	26.86	ppb		99
12) Methylene Chloride	2.824	49	1201171	24.59	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	1480100	26.56	ppb		99
14) Methyl t-Butyl Ether	3.068	73	917317	25.39	ppb		99
15) 1,1-Dichloroethane	3.410	63	1697554	26.18	ppb		99
16) Vinyl Acetate	3.458	43	677905	18.53	ppb		99
17) 2,2-Dichloropropane	3.897	77	1075056	25.36	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	1593641	26.66	ppb		100
19) 2-Butanone	3.922	43	148430	25.04	ppb		98
20) Bromochloromethane	4.098	130	328851	26.05	ppb		99
21) Chloroform	4.165	83	1322341	26.07	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	1293343	25.86	ppb	#	68
24) Carbon Tetrachloride	4.458	117	1213430	26.09	ppb		100
25) 1,1-Dichloropropene	4.452	75	1117703	26.16	ppb		100
26) Benzene	4.629	78	2935857	26.34	ppb		99
27) 1,2-Dichloroethane	4.641	62	810173	26.11	ppb		99
29) Trichloroethene	5.171	130	884095	26.91	ppb		97
30) 1,2-Dichloropropane	5.360	63	807229	26.10	ppb		99
31) Dibromomethane	5.464	174	260025	25.99	ppb		98
32) Bromodichloromethane	5.598	83	801089	26.22	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	43191	56.05	ppb	#	86
34) (cis) 1,3-Dichloropropene	5.982	75	878404	27.19	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	291919	26.08	ppb		98
37) Toluene	6.281	91	3203081	25.57	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	580541	27.13	ppb		98
40) 1,1,2-Trichloroethane	6.634	97	324195	25.49	ppb		96
41) Tetrachloroethene	6.769	166	854911	25.57	ppb		100
42) 1,3-Dichloropropane	6.787	76	586797	26.20	ppb		100
43) 2-Hexanone	6.866	43	200018	26.80	ppb		100
44) Dibromochloromethane	6.988	129	444656	26.79	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

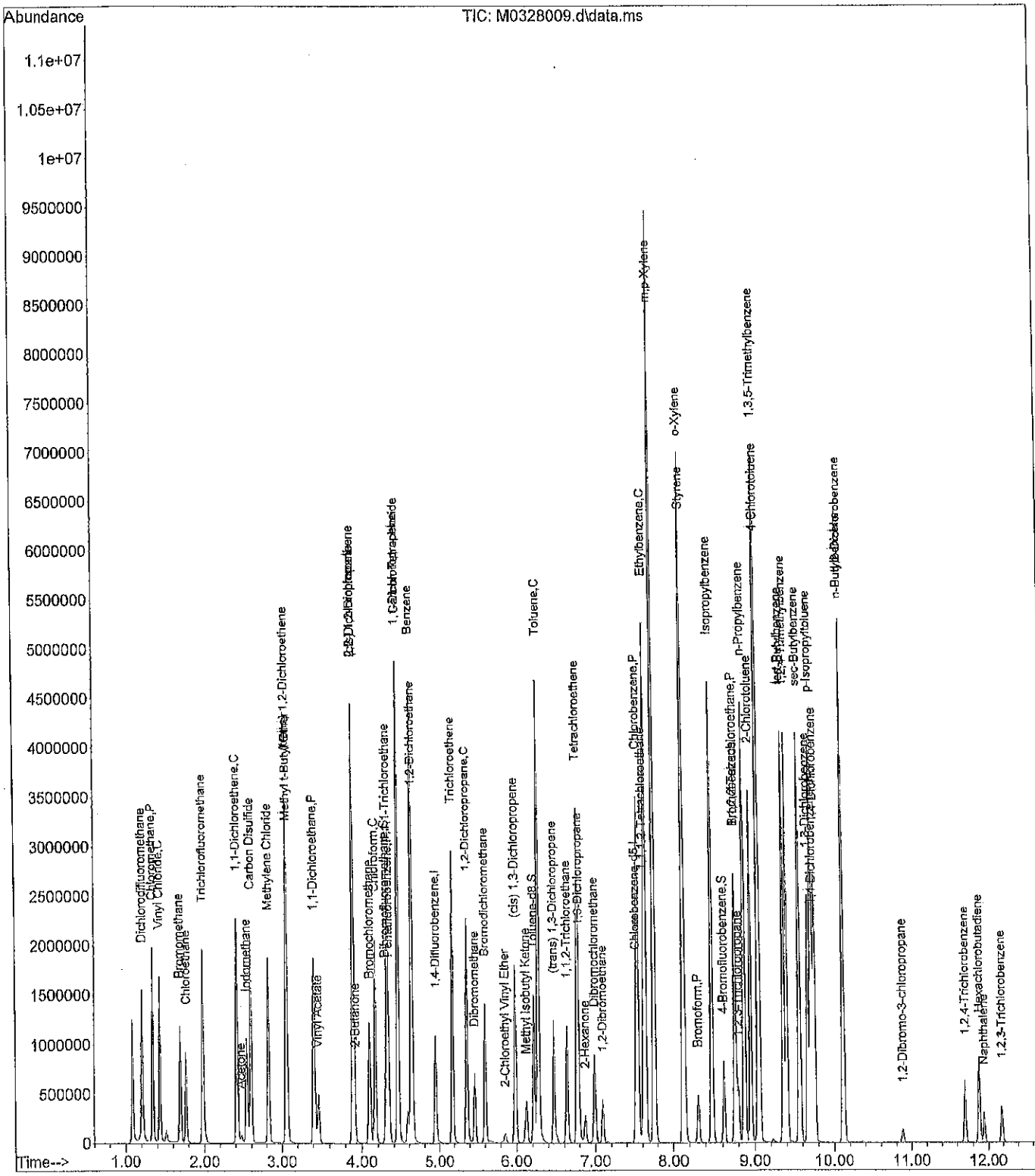
Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	292386	26.66	ppb		99
46) Chlorobenzene	7.543	112	1729622	25.68	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	576009	26.08	ppb		99
48) Ethylbenzene	7.646	91	3585151	26.38	ppb		99
49) m,p-Xylene	7.756	91	5434085	53.13	ppb		99
50) o-Xylene	8.128	91	2466541	26.02	ppb		99
51) Styrene	8.140	104	1887824	27.11	ppb		100
52) Bromoform	8.311	173	232242	26.97	ppb		99
53) Isopropylbenzene	8.476	105	3134059	26.30	ppb		100
56) Bromobenzene	8.762	156	592396	27.65	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	278507	26.56	ppb		97
58) 1,2,3-Trichloropropane	8.799	75	221012	27.51	ppb	#	100
59) n-Propylbenzene	8.872	91	3571653	27.78	ppb		100
60) 2-Chlorotoluene	8.951	126	685447	27.70	ppb		98
61) 4-Chlorotoluene	9.055	126	667612	27.22	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	2605407	27.30	ppb		99
63) tert-Butylbenzene	9.353	119	2039103	27.27	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	2384690	25.96	ppb		100
65) sec-Butylbenzene	9.567	105	2940858	26.70	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	1018598	25.04	ppb		99
67) p-Isopropyltoluene	9.713	119	2342593	25.92	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	1061821	24.81	ppb		99
69) 1,2-Dichlorobenzene	10.116	146	755745	24.41	ppb		100
70) n-Butylbenzene	10.109	91	2095716	24.39	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	35703	25.21	ppb		95
72) 1,2,4-Trichlorobenzene	11.707	180	210257	14.22	ppb		98
73) Hexachlorobutadiene	11.883	225	183636	12.77	ppb		99
74) Naphthalene	11.944	128	250957	14.31	ppb		100
75) 1,2,3-Trichlorobenzene	12.182	180	124247	12.52	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	522687	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	794397	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	648063	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	271326	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	239856	10.22	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.20%				
36) Toluene-d8	6.220	98	954439	10.21	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 102.10%				
54) 4-Bromofluorobenzene	8.622	95	292946	9.86	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	2263976	55.05	ppb		99
3) Chloromethane	1.343	50	3189613	51.05	ppb		100
4) Vinyl Chloride	1.428	62	2726670	53.16	ppb		99
5) Bromomethane	1.690	96	1188547	49.85	ppb		99
6) Chloroethane	1.769	64	1341140	49.70	ppb		99
7) Trichlorofluoromethane	1.977	101	2822826	50.31	ppb		100
8) 1,1-Dichloroethene	2.416	61	3002296	50.83	ppb		98
9) Acetone	2.477	43	169002	48.45	ppb		98
10) Iodomethane	2.538	142	2055765	49.63	ppb		97
11) Carbon Disulfide	2.592	76	4931028	52.87	ppb		100
12) Methylene Chloride	2.824	49	2461328	47.97	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	3034587	51.85	ppb		99
14) Methyl t-Butyl Ether	3.068	73	1954424	51.50	ppb		99
15) 1,1-Dichloroethane	3.409	63	3499793	51.39	ppb		99
16) Vinyl Acetate	3.464	43	1988880	50.94	ppb		99
17) 2,2-Dichloropropane	3.897	77	2173704	48.82	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	3306469	52.65	ppb		100
19) 2-Butanone	3.921	43	294527	47.30	ppb		98
20) Bromochloromethane	4.098	130	687090	51.81	ppb		98
21) Chloroform	4.165	83	2720414	51.07	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	2654495	50.52	ppb	#	58
24) Carbon Tetrachloride	4.458	117	2489450	50.96	ppb		100
25) 1,1-Dichloropropene	4.458	75	2319305	51.68	ppb		99
26) Benzene	4.629	78	6103832	52.13	ppb		98
27) 1,2-Dichloroethane	4.641	62	1656157	50.81	ppb		99
29) Trichloroethene	5.171	130	1726990	50.82	ppb		99
30) 1,2-Dichloropropane	5.360	63	1670462	52.23	ppb		99
31) Dibromomethane	5.464	174	532261	51.43	ppb		98
32) Bromodichloromethane	5.598	83	1679673	53.15	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	102169	125.64	ppb	#	89
34) (cis) 1,3-Dichloropropene	5.982	75	1826617	54.67	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	644949	55.71	ppb		98
37) Toluene	6.281	91	6709086	51.79	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	1239067	54.28	ppb		98
40) 1,1,2-Trichloroethane	6.634	97	674955	49.75	ppb		97
41) Tetrachloroethene	6.768	166	1764560	49.48	ppb		99
42) 1,3-Dichloropropane	6.787	76	1220959	51.11	ppb		99
43) 2-Hexanone	6.866	43	420528	52.83	ppb		98
44) Dibromochloromethane	6.988	129	950233	53.68	ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

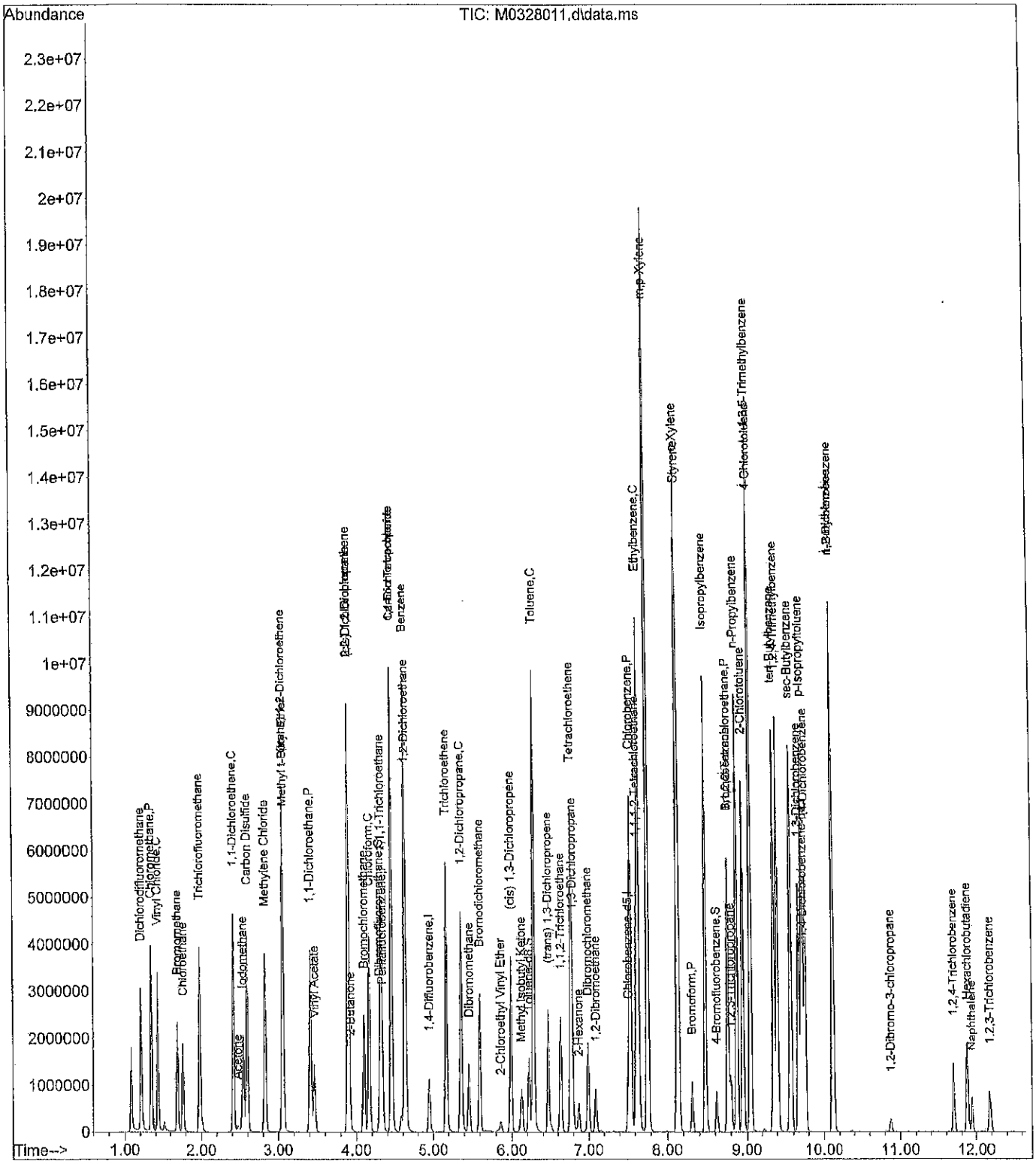
Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	599789	51.27	ppb		100
46) Chlorobenzene	7.543	112	3639368	50.66	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.622	133	1226756	52.08	ppb		99
48) Ethylbenzene	7.646	91	7483755	51.62	ppb		99
49) m,p-Xylene	7.756	91	11469508	105.12	ppb		99
50) o-Xylene	8.128	91	5194099	51.37	ppb		99
51) Styrene	8.140	104	4005725	53.92	ppb		100
52) Bromoform	8.311	173	511778	55.72	ppb		97
53) Isopropylbenzene	8.475	105	6542524	51.46	ppb		100
56) Bromobenzene	8.762	156	1232656	53.64	ppb		100
57) 1,1,2,2-Tetrachloroethane	8.762	83	621739	55.28	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	462707	53.70	ppb	#	100
59) n-Propylbenzene	8.872	91	7452772	54.05	ppb		99
60) 2-Chlorotoluene	8.951	126	1400536	52.77	ppb		98
61) 4-Chlorotoluene	9.055	126	1411549	53.66	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	5458502	53.32	ppb		100
63) tert-Butylbenzene	9.353	119	4243887	52.91	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	5034056	51.09	ppb		100
65) sec-Butylbenzene	9.567	105	6127669	51.87	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	2161176	49.54	ppb		99
67) p-Isopropyltoluene	9.713	119	4907139	50.62	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	2245473	48.92	ppb		98
69) 1,2-Dichlorobenzene	10.115	146	1619215	48.77	ppb		100
70) n-Butylbenzene	10.115	91	4472832	48.54	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.883	157	75602	49.77	ppb		94
72) 1,2,4-Trichlorobenzene	11.700	180	482632	30.43	ppb		99
73) Hexachlorobutadiene	11.883	225	393787	25.53	ppb		98
74) Naphthalene	11.944	128	596197	31.03	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	286773	26.78	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	510461	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	773794	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	619866	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	260824	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	233640	10.05	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.50%			
36) Toluene-d8	6.220	98	922244	10.11	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 101.10%			
54) 4-Bromofluorobenzene	8.622	95	278743	10.13	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 101.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	329413	8.41	ppb	100
3) Chloromethane	1.343	50	597280	9.87	ppb	100
4) Vinyl Chloride	1.428	62	501584	9.84	ppb	100
5) Bromomethane	1.690	96	230195	9.50	ppb	98
6) Chloroethane	1.769	64	257346	9.62	ppb	99
7) Trichlorofluoromethane	1.977	101	559983	10.20	ppb	99
8) 1,1-Dichloroethene	2.416	61	639672	10.90	ppb	100
9) Acetone	2.483	43	36530	10.23	ppb	99
10) Iodomethane	2.538	142	373007	9.48	ppb	99
11) Carbon Disulfide	2.592	76	935588	10.03	ppb	100
12) Methylene Chloride	2.824	49	504778	10.00	ppb	99
13) (trans) 1,2-Dichloroet...	3.056	61	595161	10.07	ppb	99
14) Methyl t-Butyl Ether	3.068	73	395430	10.62	ppb	100
15) 1,1-Dichloroethane	3.409	63	704461	10.46	ppb	99
16) Vinyl Acetate	3.464	43	172935	6.08	ppb	100
17) 2,2-Dichloropropane	3.897	77	408962	9.51	ppb	100
18) (cis) 1,2-Dichloroethene	3.897	61	638476	10.27	ppb	100
19) 2-Butanone	3.921	43	58497	9.47	ppb	98
20) Bromochloromethane	4.098	130	139022	10.67	ppb	98
21) Chloroform	4.165	83	549665	10.33	ppb	99
22) 1,1,1-Trichloroethane	4.318	97	536813	10.46	ppb	95
24) Carbon Tetrachloride	4.458	117	499537	10.42	ppb	97
25) 1,1-Dichloropropene	4.452	75	448750	10.09	ppb	99
26) Benzene	4.629	78	1210361	10.35	ppb	100
27) 1,2-Dichloroethane	4.641	62	336423	10.39	ppb	99
29) Trichloroethene	5.171	130	378291	11.08	ppb	99
30) 1,2-Dichloropropane	5.360	63	326363	10.48	ppb	99
31) Dibromomethane	5.464	174	111837	11.18	ppb	99
32) Bromodichloromethane	5.598	83	338886	10.94	ppb	98
33) 2-Chloroethyl Vinyl Ether	5.860	63	15917	9.55	ppb	99
34) (cis) 1,3-Dichloropropene	5.982	75	343393	10.79	ppb	99
35) Methyl Isobutyl Ketone	6.122	43	110853	9.73	ppb	98
37) Toluene	6.281	91	1303383	10.35	ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	231090	10.59	ppb	100
40) 1,1,2-Trichloroethane	6.634	97	131800	10.05	ppb	99
41) Tetrachloroethene	6.769	166	351520	10.39	ppb	99
42) 1,3-Dichloropropane	6.787	76	240647	10.55	ppb	99
43) 2-Hexanone	6.866	43	73055	9.33	ppb	100
44) Dibromochloromethane	6.988	129	187880	11.08	ppb	98

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration

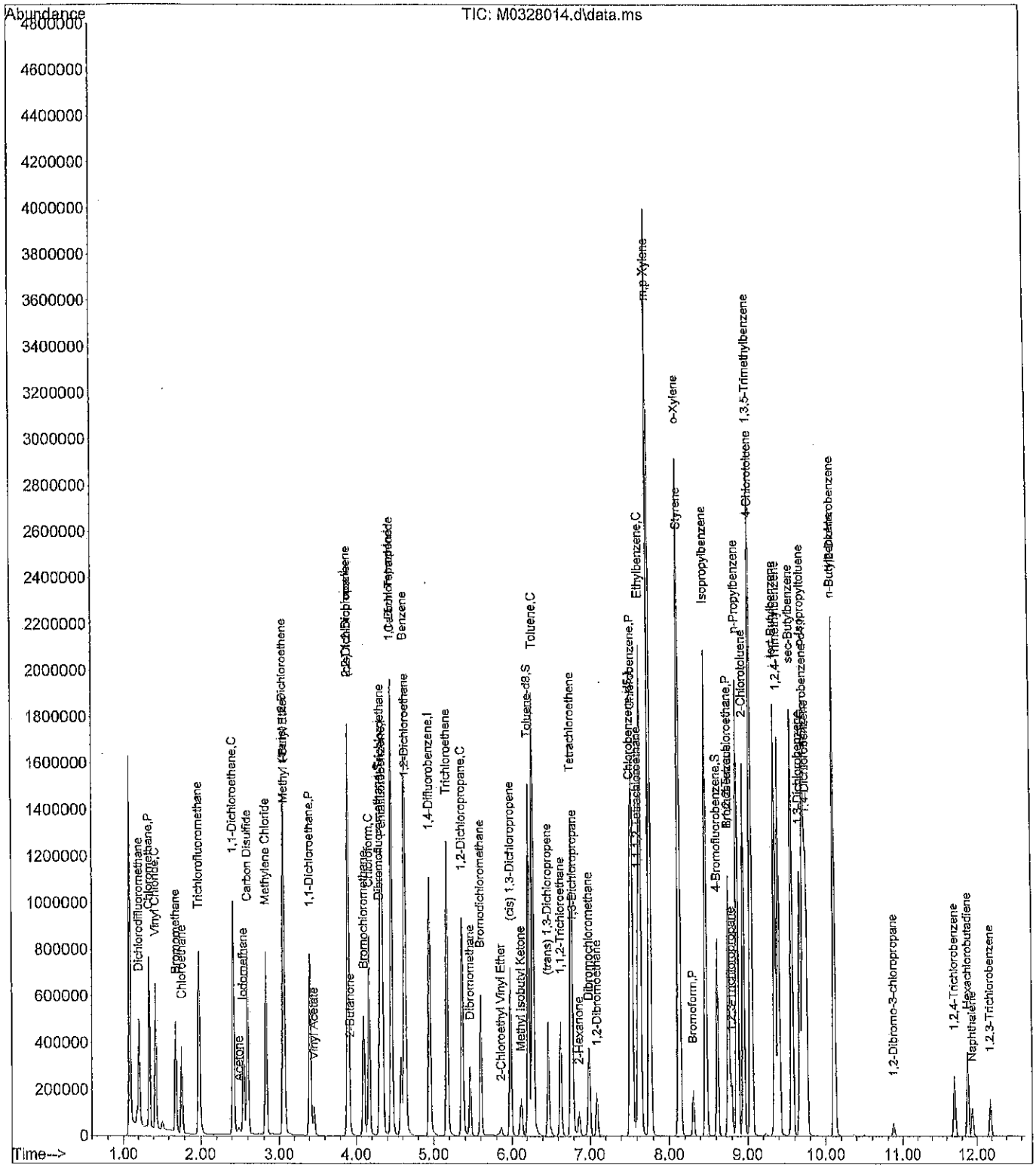
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	121746	10.62	ppb		99
46) Chlorobenzene	7.543	112	777358	11.26	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	235590	10.59	ppb		99
48) Ethylbenzene	7.646	91	1429843	10.55	ppb		100
49) m,p-Xylene	7.756	91	2249857	22.19	ppb		99
50) o-Xylene	8.128	91	1087120	11.73	ppb		100
51) Styrene	8.140	104	755347	10.94	ppb		100
52) Bromoform	8.311	173	92427	10.74	ppb		98
53) Isopropylbenzene	8.475	105	1357068	11.74	ppb		99
56) Bromobenzene	8.762	156	244612	10.36	ppb		97
57) 1,1,2,2-Tetrachloroethane	8.762	83	109511	9.58	ppb		96
58) 1,2,3-Trichloropropane	8.799	75	94450	10.47	ppb	#	100
59) n-Propylbenzene	8.872	91	1568963	11.28	ppb		99
60) 2-Chlorotoluene	8.951	126	303671	11.33	ppb		100
61) 4-Chlorotoluene	9.055	126	300275	11.41	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	1039946	10.55	ppb		99
63) tert-Butylbenzene	9.353	119	902330	11.62	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	957567	10.48	ppb		99
65) sec-Butylbenzene	9.567	105	1290528	11.52	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	459444	11.27	ppb		99
67) p-Isopropyltoluene	9.713	119	1006766	11.42	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	433737	10.18	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	343625	11.62	ppb		98
70) n-Butylbenzene	10.109	91	840590	10.44	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	14660	11.24	ppb		97
72) 1,2,4-Trichlorobenzene	11.707	180	86555	10.60	ppb		98
73) Hexachlorobutadiene	11.883	225	75185	9.84	ppb		98
74) Naphthalene	11.944	128	98546	10.16	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	52321	9.87	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424007.d
Acq On : 24 Apr 2014 10:17 am
Operator :
Sample : CCV0424W3
Misc : V3-125-14
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 24 10:30:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	10.000	10.000	0.0	114	0.00
2		Dichlorodifluoromethane	10.000	7.702	23.0#	92	0.00
3	P	Chloromethane	10.000	8.048	19.5	95	0.00
4	C	Vinyl Chloride	10.000	8.650	13.5#	99	0.00
5		Bromomethane	10.000	8.703	13.0	104	0.00
6		Chloroethane	10.000	8.379	16.2	99	0.00
7		Trichlorofluoromethane	10.000	9.007	9.9	103	0.00
8	C	1,1-Dichloroethene	10.000	9.205	7.9#	105	0.00
9		Acetone	10.000	8.678	13.2	98	0.01
10		Iodomethane	10.000	9.532	4.7	111	0.00
11		Carbon Disulfide	10.000	9.644	3.6	111	0.00
12		Methylene Chloride	10.000	8.993	10.1	107	0.00
13		(trans) 1,2-Dichloroethene	10.000	9.179	8.2	105	0.00
14		Methyl t-Butyl Ether	10.000	8.736	12.6	102	0.00
15	P	1,1-Dichloroethane	10.000	9.023	9.8	103	0.00
16		Vinyl Acetate	10.000	11.171	-11.7	136	0.00
17		2,2-Dichloropropane	10.000	8.785	12.1	100	0.00
18		(cis) 1,2-Dichloroethene	10.000	8.922	10.8	102	0.00
19		2-Butanone	10.000	8.855	11.4	104	0.00
20		Bromochloromethane	10.000	9.693	3.1	110	0.00
21	C	Chloroform	10.000	8.660	13.4#	100	0.00
22		1,1,1-Trichloroethane	10.000	8.520	14.8	97	0.00
23	S	Dibromofluoromethane	10.000	7.996	20.0#	91	0.00
24		Carbon Tetrachloride	10.000	8.745	12.6	102	0.00
25		1,1-Dichloropropene	10.000	8.692	13.1	101	0.00
26		Benzene	10.000	9.053	9.5	104	0.00
27		1,2-Dichloroethane	10.000	8.296	17.0	94	0.00
28	I	1,4-Difluorobenzene	10.000	10.000	0.0	105	0.00
29		Trichloroethene	10.000	10.084	-0.8	108	0.00
30	C	1,2-Dichloropropane	10.000	9.888	1.1#	106	0.00
31		Dibromomethane	10.000	10.668	-6.7	113	0.00
32		Bromodichloromethane	10.000	9.494	5.1	101	0.00
33		2-Chloroethyl Vinyl Ether	10.000	1.768	82.3#	20	0.00
34		(cis) 1,3-Dichloropropene	10.000	9.688	3.1	101	0.00
35		Methyl Isobutyl Ketone	10.000	9.263	7.4	103	0.00
36	S	Toluene-d8	10.000	9.592	4.1	101	0.00
37	C	Toluene	10.000	9.637	3.6#	105	0.00
38	I	Chlorobenzene-d5	10.000	10.000	0.0	103	0.00
39		(trans) 1,3-Dichloropropene	10.000	9.841	1.6	98	0.00
40		1,1,2-Trichloroethane	10.000	9.924	0.8	108	0.00
41		Tetrachloroethene	10.000	10.789	-7.9	112	0.00
42		1,3-Dichloropropane	10.000	10.029	-0.3	102	0.00
43		2-Hexanone	10.000	9.068	9.3	100	0.00
44		Dibromochloromethane	10.000	10.402	-4.0	107	0.00
45		1,2-Dibromoethane	10.000	10.433	-4.3	108	0.00
46	P	Chlorobenzene	10.000	10.244	-2.4	108	0.00
47		1,1,1,2-Tetrachloroethane	10.000	10.368	-3.7	105	0.00
48	C	Ethylbenzene	10.000	10.218	-2.2#	105	0.00

Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424007.d
Acq On : 24 Apr 2014 10:17 am
Operator :
Sample : CCV0424W3
Misc : V3-125-14
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 24 10:30:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49		m,p-Xylene	20.000	20.345	-1.7	103	0.00
50		o-Xylene	10.000	10.247	-2.5	104	0.00
51		Styrene	10.000	10.675	-6.8	106	0.00
52	P	Bromoform	10.000	10.805	-8.0	110	0.00
53		Isopropylbenzene	10.000	10.449	-4.5	105	0.00
54	S	4-Bromofluorobenzene	10.000	9.868	1.3	99	0.00
55	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	106	0.00
56		Bromobenzene	10.000	10.346	-3.5	113	0.00
57	P	1,1,2,2-Tetrachloroethane	10.000	9.662	3.4	108	0.00
58		1,2,3-Trichloropropane	10.000	9.169	8.3	100	0.00
59		n-Propylbenzene	10.000	9.786	2.1	103	0.00
60		2-Chlorotoluene	10.000	10.359	-3.6	110	0.00
61		4-Chlorotoluene	10.000	10.290	-2.9	109	0.00
62		1,3,5-Trimethylbenzene	10.000	10.441	-4.4	108	0.00
63		tert-Butylbenzene	10.000	10.321	-3.2	105	0.00
64		1,2,4-Trimethylbenzene	10.000	10.533	-5.3	109	0.00
65		sec-Butylbenzene	10.000	10.362	-3.6	106	0.00
66		1,3-Dichlorobenzene	10.000	10.745	-7.4	115	0.00
67		p-Isopropyltoluene	10.000	10.714	-7.1	110	0.00
68		1,4-Dichlorobenzene	10.000	10.650	-6.5	115	0.00
69		1,2-Dichlorobenzene	10.000	10.895	-8.9	116	0.00
70		n-Butylbenzene	10.000	10.344	-3.4	108	0.00
71		1,2-Dibromo-3-chloropropane	10.000	11.557	-15.6	122	0.00
72		1,2,4-Trichlorobenzene	10.000	12.480	-24.8#	132	0.00
73		Hexachlorobutadiene	10.000	13.849	-38.5#	153	0.00
74		Naphthalene	10.000	10.704	-7.0	115	0.00
75		1,2,3-Trichlorobenzene	10.000	11.069	-10.7	120	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424007.d
Acq On : 24 Apr 2014 10:17 am
Operator :
Sample : CCV0424W3
Misc : V3-125-14
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 24 10:30:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	555321	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	799812	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	615337	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	260827	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	202214	8.00	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.00%				
36) Toluene-d8	6.220	98	904062	9.59	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.90%				
54) 4-Bromofluorobenzene	8.616	95	269558	9.87	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.70%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	328177	7.70	ppb		99
3) Chloromethane	1.343	50	529980	8.05	ppb		99
4) Vinyl Chloride	1.428	62	479846	8.65	ppb		100
5) Bromomethane	1.690	96	229407	8.70	ppb		99
6) Chloroethane	1.769	64	243745	8.38	ppb		99
7) Trichlorofluoromethane	1.977	101	538108	9.01	ppb		99
8) 1,1-Dichloroethene	2.416	61	587650	9.20	ppb		100
9) Acetone	2.483	43	34058	8.68	ppb		99
10) Iodomethane	2.538	142	408135	9.53	ppb		94
11) Carbon Disulfide	2.592	76	979012	9.64	ppb		100
12) Methylene Chloride	2.824	49	493955	8.99	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	589995	9.18	ppb		100
14) Methyl t-Butyl Ether	3.068	73	353722	8.74	ppb		97
15) 1,1-Dichloroethane	3.409	63	661069	9.02	ppb		100
16) Vinyl Acetate	3.464	43	345929	11.17	ppb		99
17) 2,2-Dichloropropane	3.897	77	410930	8.79	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	603613	8.92	ppb		100
19) 2-Butanone	3.921	43	59523	8.86	ppb		95
20) Bromochloromethane	4.098	130	137410	9.69	ppb		95
21) Chloroform	4.165	83	501371	8.66	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	475603	8.52	ppb		98
24) Carbon Tetrachloride	4.458	117	456077	8.74	ppb		97
25) 1,1-Dichloropropene	4.452	75	420608	8.69	ppb		99
26) Benzene	4.629	78	1151743	9.05	ppb		99
27) 1,2-Dichloroethane	4.641	62	292297	8.30	ppb		100
29) Trichloroethene	5.171	130	355740	10.08	ppb		98
30) 1,2-Dichloropropane	5.360	63	318329	9.89	ppb		100
31) Dibromomethane	5.464	174	110289	10.67	ppb		97
32) Bromodichloromethane	5.598	83	303934	9.49	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.866	63	3044	1.77	ppb	#	58
34) (cis) 1,3-Dichloropropene	5.982	75	318747	9.69	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	109071	9.26	ppb		97
37) Toluene	6.281	91	1254439	9.64	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	213180	9.84	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	129260	9.92	ppb		100
41) Tetrachloroethene	6.768	166	362183	10.79	ppb		99
42) 1,3-Dichloropropane	6.787	76	227011	10.03	ppb		100
43) 2-Hexanone	6.866	43	70468	9.07	ppb		99
44) Dibromochloromethane	6.988	129	175014	10.40	ppb		100

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424007.d
Acq On : 24 Apr 2014 10:17 am
Operator :
Sample : CCV0424W3
Misc : V3-125-14
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 24 10:30:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

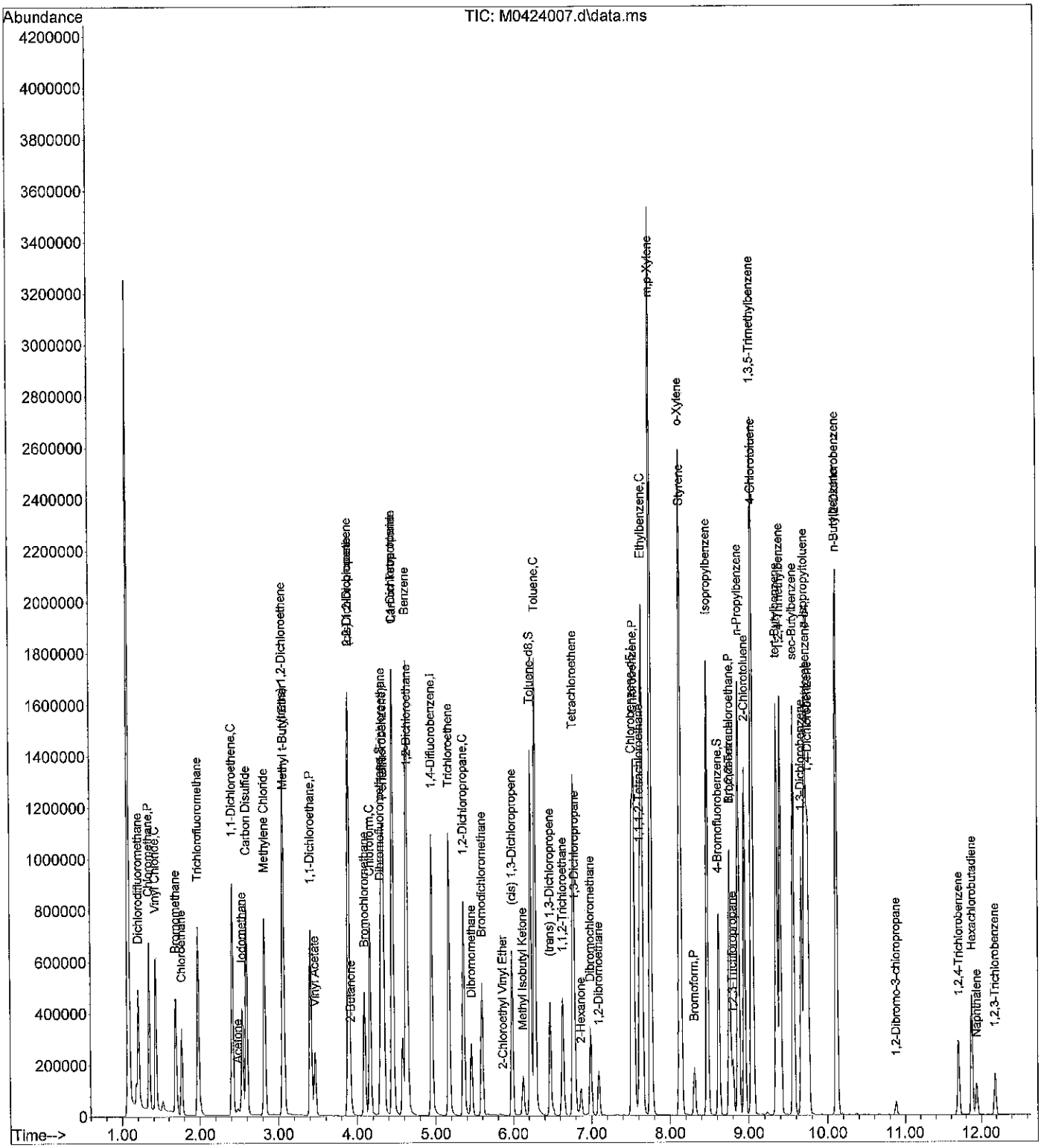
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	118780	10.43	ppb		99
46) Chlorobenzene	7.543	112	701852	10.24	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	228885	10.37	ppb		99
48) Ethylbenzene	7.646	91	1374774	10.22	ppb		98
49) m,p-Xylene	7.756	91	2047967	20.34	ppb		97
50) o-Xylene	8.128	91	942429	10.25	ppb		98
51) Styrene	8.140	104	731927	10.68	ppb		100
52) Bromoform	8.311	173	92315	10.81	ppb		98
53) Isopropylbenzene	8.475	105	1199407	10.45	ppb		99
56) Bromobenzene	8.762	156	244170	10.35	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	110443	9.66	ppb		97
58) 1,2,3-Trichloropropane	8.799	75	82722	9.17	ppb	#	100
59) n-Propylbenzene	8.872	91	1361620	9.79	ppb		99
60) 2-Chlorotoluene	8.951	126	277723	10.36	ppb		99
61) 4-Chlorotoluene	9.055	126	270767	10.29	ppb		98
62) 1,3,5-Trimethylbenzene	9.042	105	1028838	10.44	ppb		97
63) tert-Butylbenzene	9.353	119	801307	10.32	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	962019	10.53	ppb		97
65) sec-Butylbenzene	9.567	105	1160407	10.36	ppb		98
66) 1,3-Dichlorobenzene	9.670	146	438037	10.75	ppb		99
67) p-Isopropyltoluene	9.713	119	944872	10.71	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	453934	10.65	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	322215	10.90	ppb		98
70) n-Butylbenzene	10.109	91	832687	10.34	ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	15077	11.56	ppb		93
72) 1,2,4-Trichlorobenzene	11.707	180	101892	12.48	ppb		99
73) Hexachlorobutadiene	11.883	225	105832	13.85	ppb		99
74) Naphthalene	11.944	128	103866	10.70	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	58779	11.07	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424007.d
Acq On : 24 Apr 2014 10:17 am
Operator :
Sample : CCV0424W3
Misc : V3-125-14
ALS Vial : 7 Sample Multiplier: 1

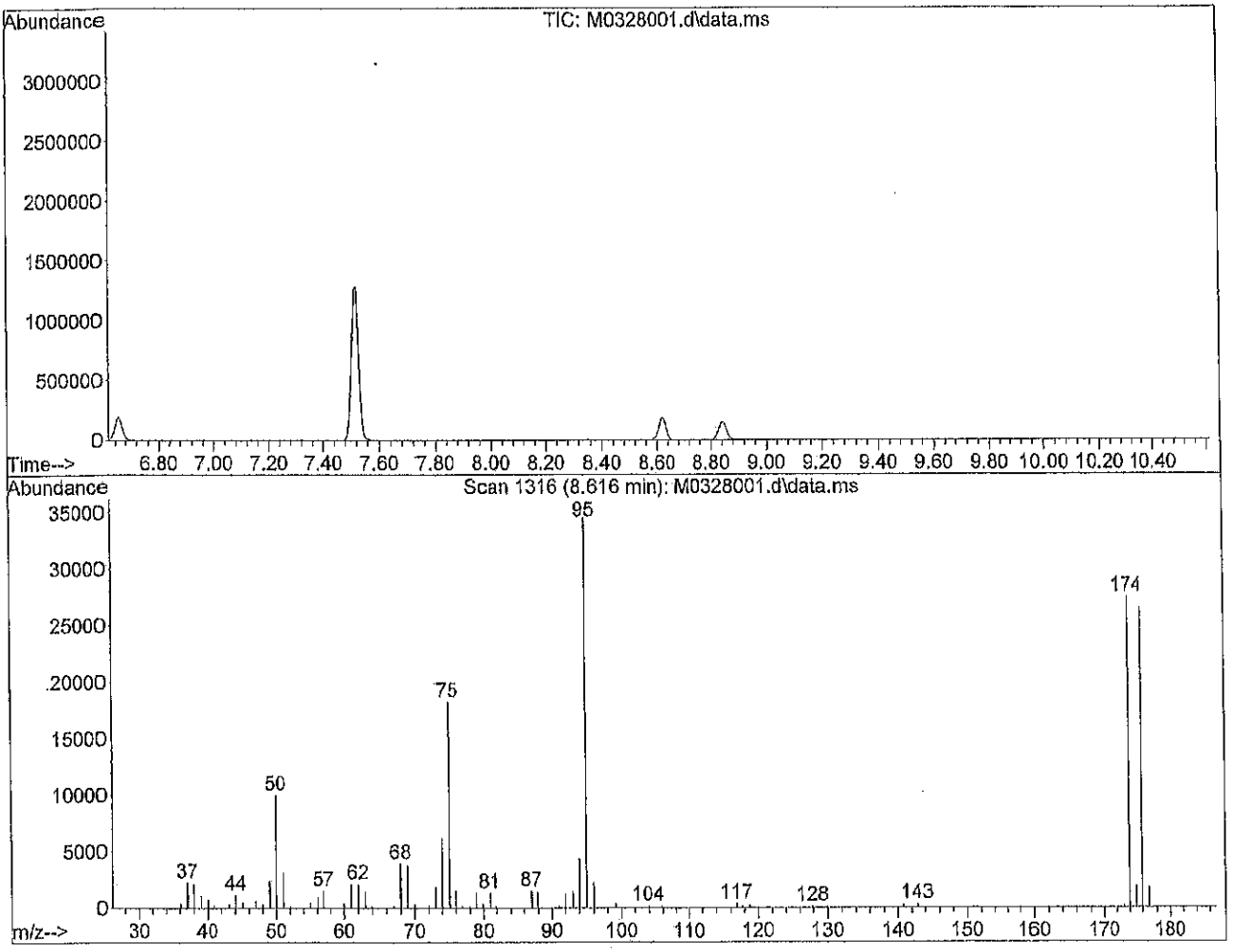
Quant Time: Apr 24 10:30:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\M140328\Snapshot\
Data File : M0328001.d
Acq On : 28 Mar 2014 6:54 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140324W.M
Title :
Last Update : Mon Mar 24 11:06:36 2014



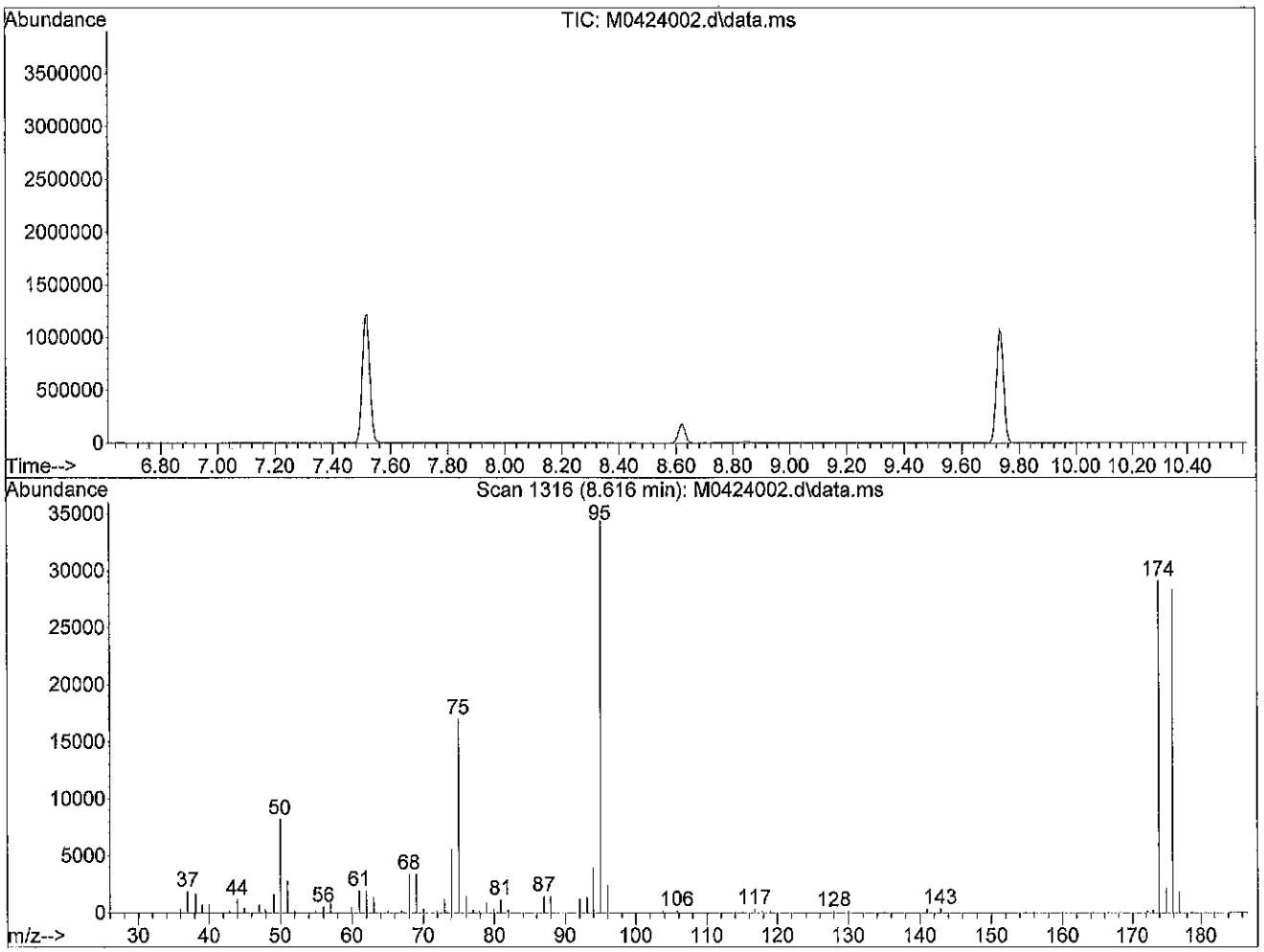
Spectrum Information: Scan 1316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	29.0	10030	PASS
75	95	30	80	52.9	18280	PASS
95	95	100	100	100.0	34536	PASS
96	95	5	9	6.6	2289	PASS
173	174	0.00	2	0.7	191	PASS
174	95	50	100	79.5	27456	PASS
175	174	5	9	7.0	1915	PASS
176	174	95	101	96.5	26504	PASS
177	176	5	9	6.6	1751	PASS

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424002.d
Acq On : 24 Apr 2014 7:53 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014



Spectrum Information: Scan 1316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.0	8234	PASS
75	95	30	80	49.5	17000	PASS
95	95	100	100	100.0	34360	PASS
96	95	5	9	7.1	2437	PASS
173	174	0.00	2	0.8	219	PASS
174	95	50	100	84.8	29144	PASS
175	174	5	9	7.6	2220	PASS
176	174	95	101	97.2	28336	PASS
177	176	5	9	6.6	1862	PASS

GC/MS QA-QC Check Report

Tune File : X:\VOLATILE\MORRIS\DATA\M140424\M0424002.d
Tune Time : 24 Apr 2014 7:53 am

Daily Calibration File : X:\VOLATILE\MORRIS\DATA\M140424\M0424007.d

555321 799812 615337

260827

File	Sample	Surrogate Recovery %			Internal Standard Responses		
M0424008.d							
	SB0424W1	81	92	92	556225	819272	607674
				239241			
M0424009.d							
	SBD0424W1	80	93	94	559404	818347	621360
				242217			
M0424011.d							
	MB0424W1	82	94	93	546057	785812	609082
				242258			
M0424023.d							
	04-167-01b	86	96	94	546955	774007	615118
				244941			
M0424024.d							
	04-167-02b	84	95	93	540052	779951	604451
				239439			
M0424025.d							
	04-167-03b	84	94	92	540109	778967	607585
				246206			
M0424026.d							
	04-167-04b	83	95	94	538958	770087	607115
				246364			
M0424027.d							
	04-167-05b	82	94	92	538380	766249	595483
				234954			
M0424028.d							
	04-167-06b	85	94	93	537983	777988	608428
				239834			

(fails) - fails 12hr time check * - fails criteria

Created: Fri Apr 25 11:39:50 2014 Morris

Sequence Name: C:\msdchem\1\sequence\M140328.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140328\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

	Line		Sample Name/Misc Info
1)	Sample	1	M0328001 M140324W 50ng bfb mass tune
2)	Sample	2	M0328002 M140324W blank
3)	Sample	3	M0328003 M140324W 0.20 PPB ICAL
4)	Sample	4	M0328004 M140324W 1.0 PPB ICAL
5)	Sample	5	M0328005 M140324W 2.0 PPB ICAL
6)	Sample	6	M0328006 M140324W 5.0 PPB ICAL
7)	Sample	7	M0328007 M140324W 10 PPB ICAL
8)	Sample	8	M0328008 M140324W BLANK
9)	Sample	9	M0328009 M140324W 25 PPB ICAL
10)	Sample	10	M0328010 M140324W BLANK
11)	Sample	11	M0328011 M140324W 50 PPB ICAL
12)	Sample	12	M0328012 M140324W BLANK
13)	Sample	13	M0328013 M140324W BLANK
14)	Sample	14	M0328014 M140324W ICV0328W1
15)	Sample	15	M0328015 M140324W BLANK
16)	Sample	16	M0328016 M140324W BLANK
17)	Sample	17	M0328017 M140324W BLANK
18)	Sample	18	M0328018 M140324W 03-202-01a 1:100 SCREEN
19)	Sample	19	M0328019 M140324W 03-202-02a 1:100 SCREEN
20)	Sample	20	M0328020 M140324W 03-202-03a 1:100 SCREEN
21)	Sample	21	M0328021 M140324W 03-202-04a 1:100 SCREEN
22)	Sample	22	M0328022 M140324W 03-206-04c 1:100 SCREEN
23)	Sample	23	M0328023 M140324W 03-206-08c 1:100 SCREEN
24)	Sample	24	M0328024 M140324W 03-206-12c 1:100 SCREEN
25)	Sample	25	M0328025 M140324W 03-206-16c 1:100 SCREEN
26)	Sample	26	M0328026 M140324W 03-207-01a 1:100 SCREEN
27)	Sample	27	M0328027 M140324W 03-207-02a 1:100 SCREEN
28)	Sample	28	M0328028 M140324W 03-207-03a 1:100 SCREEN
29)	Sample	29	M0328029 M140324W 03-207-04a 1:100 SCREEN
30)	Sample	30	M0328030 M140324W 03-207-05a 1:100 SCREEN
31)	Sample	31	M0328031 M140324W 03-207-06a 1:100 SCREEN
32)	Sample	32	M0328032 M140324W 03-207-07a 1:100 SCREEN
33)	Sample	33	M0328033 M140324W 03-207-08a 1:100 SCREEN
34)	Sample	34	M0328034 M140324W 03-207-09a 1:100 SCREEN

Sequence Name: C:\msdchem\1\sequence\M140424.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140424\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0424001 M140328W 50ng bfb mass tune
2)	Sample 2	M0424002 M140328W 50ng bfb mass tune
3)	Sample 3	M0424003 M140328W CCV0424W1
4)	Sample 4	M0424004 M140328W CCV0424W2
5)	Sample 5	M0424005 M140328W 04-182-01a 1:100 SCREEN
6)	Sample 6	M0424006 M140328W 04-182-02a 1:100 SCREEN
7)	Sample 7	M0424007 M140328W CCV0424W3
8)	Sample 8	M0424008 M140328W SB0424W1
9)	Sample 9	M0424009 M140328W SBD0424W1
10)	Sample 10	M0424010 M140328W NEW H2O VOA TEST 4
11)	Sample 11	M0424011 M140328W MB0424W1
12)	Sample 12	M0424012 M140328W 04-157-02b
13)	Sample 13	M0424013 M140328W 04-157-03b
14)	Sample 14	M0424014 M140328W 04-157-04b
15)	Sample 15	M0424015 M140328W 04-157-05b
16)	Sample 16	M0424016 M140328W MB0424A1 1:5
17)	Sample 17	M0424017 M140328W 04-193-02A 1:5
18)	Sample 18	M0424018 M140328W 04-193-01A 1:5
19)	Sample 19	M0424019 M140328W 04-193-01A 1:5 DUP
20)	Sample 20	M0424020 M140328W 04-157-01b
21)	Sample 21	M0424021 M140328W BLANK
22)	Sample 22	M0424022 M140328W 04-157-06b
23)	Sample 23	M0424023 M140328W 04-167-01b
24)	Sample 24	M0424024 M140328W 04-167-02b
25)	Sample 25	M0424025 M140328W 04-167-03b
26)	Sample 26	M0424026 M140328W 04-167-04b
27)	Sample 27	M0424027 M140328W 04-167-05b
28)	Sample 28	M0424028 M140328W 04-167-06b
29)	Sample 29	M0424029 M140328W 04-182-01b

OnSite Environmental Inc.

WATER EXTRACTION LOG

Instrument Run #: M140424
Date: 4-24-14

Int. Std./Surr. Stock#: V3-125-12 / V3-125-13
Matrix Spike Stock#: V3-125-5

# of Sample	Date	Sample I.D.	Volume	pH of Sample	Analyst	Miscellaneous
	4-24-14	MB042414W1	25mL	7	SD	
		SB042414W1		7		
		SBD042414W1		7		
1		04-157-01b		2		
2		-02b		2		
3		-03b		2		
4		-04b		2		
5		-05b		2		
6		-06b		2		
7		04-167-01b		2		
8		-02b		2		
9		-03b		2		
10		-04b		2		
11		-05b		2		
12		-06b		2		
13		04-182-01b		2		
14		-02b				DIDN'T RUN - RUN STOPPED SD 4-25-14
		MB042414A1	5mL	N/A		AIR 1:5
1		04-193-01A				
2		-02A				
		-01ADUP				

SD 4-24-14

TITLE PROJECT

Continued from page 114

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
VOC ADD'S	V3-115-1	M-8260-ADD-10X			1 mL			10-1-13	SD
250 ppm ICAL	V3-115-2	V3-114-4	2000 ppm	25 µL	1 mL	250 ppm	MeOH	10-1-13	SD
		V3-114-16							
		V3-115-1							
50 ppm ICAL	V3-115-3	V3-115-2	250 ppm	200 µL	1 mL	50 ppm	MeOH	10-1-13	SD
10 ppm ICAL	V3-115-4	V3-115-3	50 ppm	200 µL	1 mL	10 ppm	MeOH	10-1-13	SD
5 ppm ICAL	V3-115-5	V3-115-3	50 ppm	100 µL	1 mL	5 ppm	MeOH	10-1-13	SD
1 ppm ICAL	V3-115-6	V3-115-3	50 ppm	20 µL	1 mL	1 ppm	MeOH	10-1-13	SD
50 ppm SS (true)	V3-115-7	V3-113-16	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
50 ppm ICV	V3-115-8	V3-101-7	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
		V3-101-8							
		V3-101-9							
50 ppm CCV	V3-115-9	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
		V3-114-16							
		V3-115-1							
2000 ppm SS	V3-115-10	M-8240/60-SS-10X			1 mL			10-7-13	SD
		Surrogate Standard VOA Mix							
		2.0 mg/mL in MeOH							
		Lot: 212051380							
		Exp: Jun 1, 2022							
250 ppm SS	V3-115-11	V3-113-16	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-7-13	SD
		V3-115-10							
250 ppm IS	V3-115-12	V3-114-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-8-13	SD
50 ppm SS	V3-115-13	V3-115-10	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	SD
50 ppm IS	V3-115-14	V3-114-14	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	SD
.05 ppm ICAL	V3-115-15	V3-115-6	1 ppm	.050 mL	1 mL	.050 ppm	MeOH	10-9-13	SD
50 ppm CCV	V3-115-16	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-10-13	SD
		V3-114-16							
		V3-115-1							
2500 ppm MS	V3-115-17	CLP-003-R-10X			1 mL			10-10-13	SD
		Purgeable Organic Matrix Spiking Soln.							
		2.5 mg/mL in MeOH							
		Lot: 212011385							
		Exp: Feb 6, 2022							

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 213091338
Exp: Jan 25, 2014
1 mL
8 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Freeze (<-10° C)
Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 212051380
Exp: Jun 1, 2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
CLP-003-R-10X
Purgeable Organic Matrix Spiking Soln.
2.5 mg/mL in MeOH
Lot: 212011385
Exp: Feb 6, 2022
1 mL
5 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Freeze (<-10° C)
Danger

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PROJECT

Continued from page 120

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
2000 ppm IS	V3-121-1							2-3-14	SD
250 ppm IS	V3-121-2	V3-120-8 + V3-121-1	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-3-14	SD
50 ppm IS	V3-121-3	V3-119-9	2500 ppm	20 mL	1 mL	50 ppm	MeOH	2-3-14	SD
2000 ppm SS	V3-121-4							2-4-14	SD
250 ppm SS	V3-121-13	V3-120-13 + V3-121-4	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-4-14	SD
250 ppm SS	V3-121-5	V3-120-13 + V3-121-4	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-4-14	SD
VOC Liquids	V3-121-6							2-5-14	SD
VOC ADD IS	V3-121-7							2-5-14	SD
VOC GASES	V3-121-8							2-5-14	SD
250 ppm ICAL	V3-121-9	V3-121-6 / V3-121-7 / V3-121-8	2000 ppm	125 mL	1 mL	250 ppm	MeOH	2-5-14	SD
50 ppm ICAL	V3-121-10	V3-121-9	250 ppm	200 mL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ICAL	V3-121-11	V3-121-10	50 ppm	200 mL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ICAL	V3-121-12	V3-121-10	50 ppm	100 mL	1 mL	5 ppm	MeOH	2-5-14	SD

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8240/60-SS-10X 1 mL
~~Surrogate~~ Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 212051380 4 comps.
Exp: Jun 1,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
~~STORAGE Ambient~~
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 213121006 8 comps.
Exp: Apr 3,2014 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Califo to cause cancer and birth defects or ot reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-502B-10X 1 mL
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424 6 comps.
Exp: May 2,2016 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

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V3 - 122
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TITLE

PROJECT

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ANALYTE	LAB ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Initials
1 ppm ICAL	V3-122-1	V3-121-10	5 ppm	20 mL	1 mL	1 ppm	MeOH	2-5-14	SD
0.1 ppm ICAL	V3-122-2	V3-121-1	1 ppm	5 mL	0.5 mL	0.1 ppm	MeOH	2-5-14	SD
ICV VOC LIQUIDS	V3-122-3								
ICV VOC ADDs	V3-122-4								
ICV VOC GASES	V3-122-5								
50 ppm ICV	V3-122-6	V3-122-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-5-14	SD
		V3-122-4							
		V3-122-5							
100 ppm ACRYL/DCB	V3-122-7	V3-117-11	100 ppm	500 µL	1 mL	100 ppm	MeOH	2-5-14	SD
		V3-117-12	100 ppm	500 µL					
50 ppm ACRYL/DCB	V3-122-8	V3-122-7	100 ppm	500 µL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ACRYL/DCB	V3-122-9	V3-122-8	50 ppm	200 µL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ACRYL/DCB	V3-122-10	V3-122-8	50 ppm	100 µL	1 mL	5 ppm	MeOH	2-5-14	SD
50 ppm CCV	V3-122-11	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-7-14	SD
		V3-121-7	2000 ppm	25 mL					
		V3-121-8	2000 ppm	25 mL					
25 ppm IS	V3-122-12	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-18-14	SD
250 ppm IS	V3-122-13	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-24-14	SD
2000 ppm IS	V3-122-14								
250 ppm IS	V3-122-15	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-24-14	SD
		V3-122-14							

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PROPRIETARY INFORMATION

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	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
	50 ppm SS (tune)	V3-123-1	V3-121-4	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-26-14	SD
	50 ppm CCV	V3-123-2	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	2-27-14	SD
5			V3-121-7							
			V3-121-8							
waldo	50 ppm IS	V3-123-3	V3-122-14	2000 ppm	100 µL	4 mL	50 ppm	MeOH	2-27-14	EEN
waldo	50 ppm SS	V3-123-4	V3-121-4	2000 ppm	100 µL	4 mL	50 ppm	MeOH	2-27-14	EEN
	2000 ppm SS	V3-123-5							2-28-14	SD
10									Spent 3-2-14	
Albert	250 ppm SS	V3-123-6	V3-121-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-28-14	SD
			V3-123-5							
	50 ppm IS	V3-123-7	V3-122-14	2000 ppm	625 µL	25 mL	50 ppm	MeOH	3-6-14	SD
Morris	2000 ppm IS	V3-123-8							3-10-14	SD
15									Spent 3-12-14	
Albert	250 ppm IS	V3-123-9	V3-122-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
			V3-123-8							
Albert	250 ppm SS	V3-123-10	V3-123-5	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
	50 ppm CCV	V3-123-11	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-10-14	SD
			V3-121-7							
25			V3-121-8							
	50 ppm CCV	V3-123-12	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-121-8							
	VOC GASES	V3-123-13							3-13-14	SD
30										
	50 ppm CCV	V3-123-14	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-123-13							
35										

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AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028
Exp: Nov 6,2023
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287
Exp: Nov 19,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424
Exp: May 2,2016
1 mL
6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
Danger

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PROPRIETARY INFORMATION

V3 - 124
BOOK PAGE

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Continued from page 123	Lab ID	Stock ID	Stock conc.	Stock Vol.	Final Vol.	Final conc.	Solvent	Date	Initials
Analyte									
250 ppm IS/SS	V3-124-1	V3-123-8	2000 ppm	250 µL	2 mL	250 ppm	MeOH	3-14-14	EEM
		V3-123-5		250 µL					
~~50 ppm MS~~	~~V3-124-2~~	~~V3-115-7~~	~~2500 ppm~~	~~200 µL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~ discarded 3-14-14
50 ppm ICV	V3-124-3	V3-122-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-19-14	SD
		V3-123-4							
		V3-123-5							
VOC Liquids	V3-124-4							3-19-14	SD
VOC ADD's	V3-124-5							3-19-14	SD
250 ppm ICAL	V3-124-6	V3-123-13	2000 ppm	125 mL	1 mL	250 ppm	MeOH	3-19-14	SD
		V3-124-4							
		V3-124-5							
50 ppm ICAL	V3-124-7	V3-124-6	250 ppm	200	1 mL	50 ppm	MeOH	3-19-14	SD
10 ppm ICAL	V3-124-8	V3-124-7	50 ppm	200	1 mL	10 ppm	MeOH	3-19-14	SD
5 ppm ICAL	V3-124-9	V3-124-7	50 ppm	100	1 mL	5 ppm	MeOH	3-19-14	SD
1 ppm ICAL	V3-124-10	V3-124-7	50 ppm	20	1 mL	1 ppm	MeOH	3-19-14	SD
~~CCV 50 ppm~~	~~V3-124-11~~	~~V3-123-13~~	~~2000 ppm~~	~~25 mL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~ discarded 3-19-14
		V3-124-4							
		V3-124-5							
2000 ppm SS	V3-124-12							3-21-14	SD
~~250 ppm IS~~	~~V3-124-13~~	~~V3-123-8~~	~~2000 ppm~~	~~500 mL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~ discarded 3-31-14
~~250 ppm SS~~	~~V3-124-14~~	~~V3-123-5~~	~~2000 ppm~~	~~500 mL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~ spiked 3-31-14
		V3-124-12							
8000 ppm IS	V3-124-15							3-31-14	SD

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-502A-R3-10X
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
1 mL
55 comps.
Lot: 212081619
Exp: Aug 30,2015
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
1 mL
8 comps.
Lot: 214021286
Exp: Jun 28,2014
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Storage: Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
1 mL
4 comps.
Lot: 213111028
Exp: Nov 6,2023
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
1 mL
4 comps.
Lot: 212111287
Exp: Nov 19,2022
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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TITLE PROJECT

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	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
Albert	~~250 ppm IS~~	~~V3-125-1~~	~~V3-123-8~~		~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-31-14~~	~~SD~~
			V3-124-15	2000 ppm						
Albert	~~250 ppm SS~~	~~V3-125-2~~	~~V3-124-12~~	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-31-14~~	~~SD~~
Albert	~~250 ppm IS~~	~~V3-125-3~~	~~V3-124-15~~	~~2000 ppm~~	~~250 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-9-14~~	~~SD~~
	50 ppm CCV	V3-125-4	V3-123-13	2000 ppm	~~2000 ppm~~ 25 µL	~~1 mL~~ 2 mL	~~50 ppm~~ 50 ppm	MeOH	4-9-14	SD
			V3-124-4							
			V3-124-5							
	50 ppm M.S.	V3-125-5	V3-115-17	2500 ppm	20 mL	1 mL	50 ppm	MeOH	4-9-14	SD
Albert	~~250 ppm SS~~	~~V3-125-6~~	~~V3-124-12~~	~~2000 ppm~~	~~250 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-14-14~~	~~SD~~
Albert	~~250 ppm IS~~	~~V3-125-7~~	~~V3-124-15~~	~~2000 ppm~~	~~250 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-16-14~~	~~SD~~
	2000 ppm IS	V3-125-8							4-21-14	SD
									4-21-14	SD
	2000 ppm SS	V3-125-9								
Albert	~~250 ppm IS~~	~~V3-125-10~~	~~V3-124-15~~	~~2000 ppm~~	~~250 mL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-21-14~~	~~SD~~
Albert	~~250 ppm SS~~	~~V3-125-11~~	~~V3-125-9~~	~~2000 ppm~~	~~250 mL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-21-14~~	~~SD~~
Morris	50 ppm IS	V3-125-12	V3-125-8	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
Morris	50 ppm SS	V3-125-13	V3-125-9	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
	50 ppm CCV	V3-125-14	V3-123-13	2000 ppm	25 µL	1 mL	50 ppm	MeOH	4-22-14	SD
			V3-124-4							
			V3-124-5							
Albert	250 ppm IS	V3-125-15	V3-125-8	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-25-14	SD
Albert	250 ppm SS	V3-125-16	V3-125-9	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-25-14	SD

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
Storage: Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6,2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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SIGNATURE DATE

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PROPRIETARY INFORMATION

Complete Data Package

- Volatiles by EPA 8260C

Volatiles by EPA 8260C Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424023.d
Acq On : 24 Apr 2014 5:04 pm
Operator :
Sample : 04-167-01b
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Apr 25 10:52:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

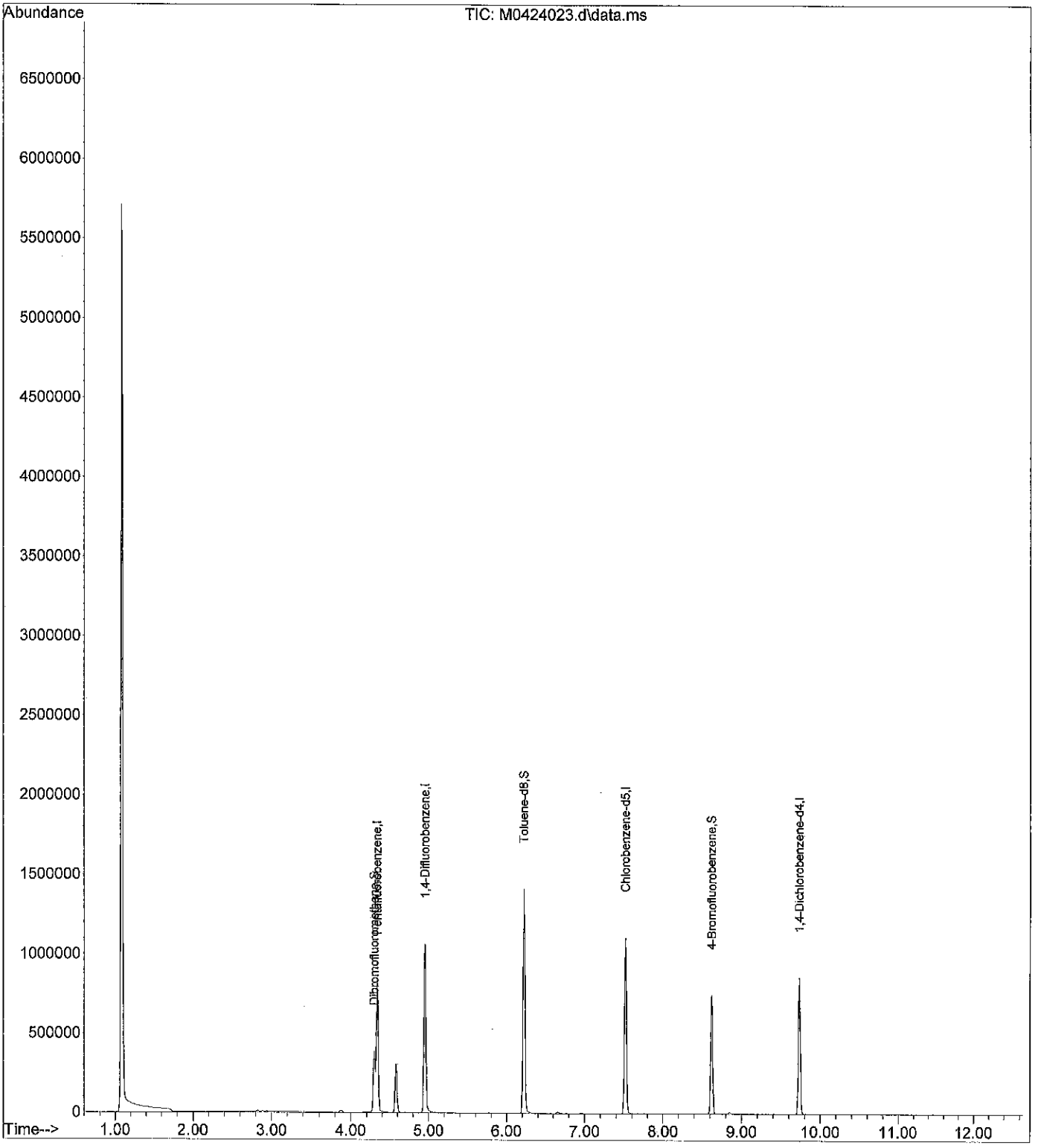
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	546955	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	774007	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	615118	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	244941	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	213822	8.58	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 85.80%			
36) Toluene-d8	6.220	98	873524	9.58	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.80%			
54) 4-Bromofluorobenzene	8.622	95	257163	9.42	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.20%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424023.d
Acq On : 24 Apr 2014 5:04 pm
Operator :
Sample : 04-167-01b
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Apr 25 10:52:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424024.d
Acq On : 24 Apr 2014 5:27 pm
Operator :
Sample : 04-167-02b
Misc :
ALS Vial : 24 Sample Multiplier: 1

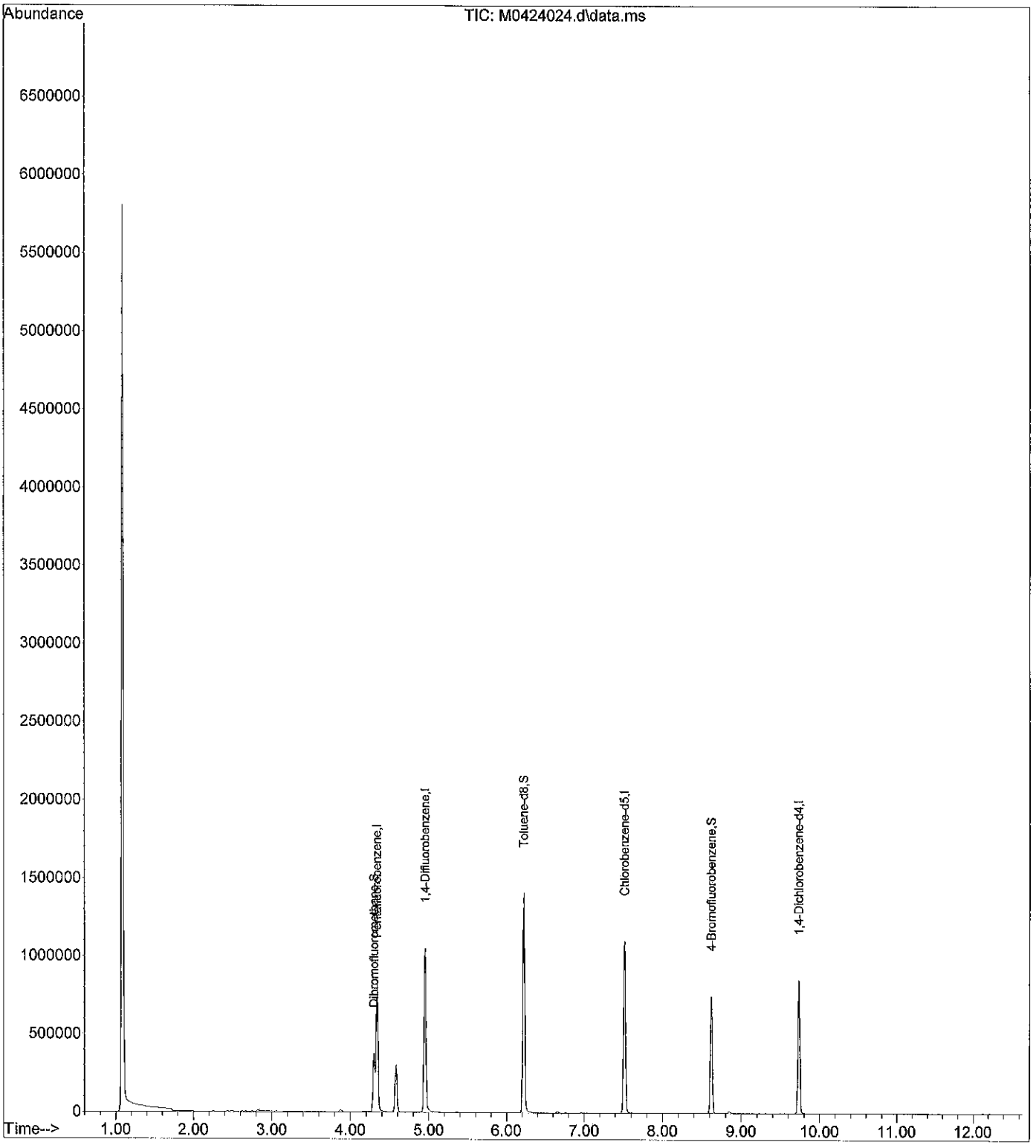
Quant Time: Apr 25 10:52:59 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	540052	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	779951	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	604451	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	239439	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	206565	8.40	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.00%			
36) Toluene-d8	6.220	98	869232	9.46	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 94.60%			
54) 4-Bromofluorobenzene	8.622	95	250683	9.34	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.40%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424024.d
Acq On : 24 Apr 2014 5:27 pm
Operator :
Sample : 04-167-02b
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Apr 25 10:52:59 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424025.d
Acq On : 24 Apr 2014 5:51 pm
Operator :
Sample : 04-167-03b
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Apr 25 10:53:44 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

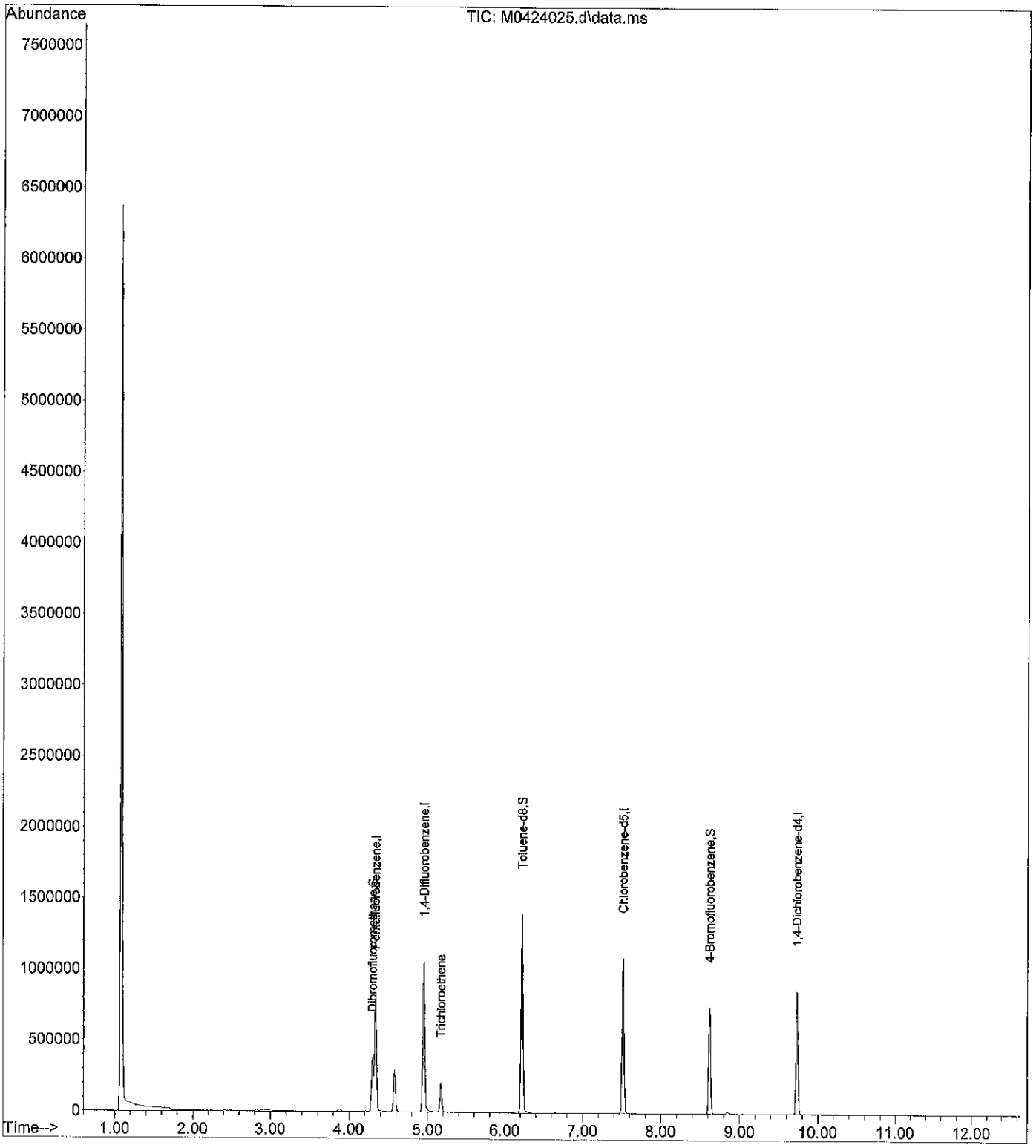
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	540109	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	778967	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	607585	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246206	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	207698	8.44	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.40%			
36) Toluene-d8	6.220	98	865730	9.43	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 94.30%			
54) 4-Bromofluorobenzene	8.622	95	249020	9.23	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.30%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	63122	1.84	ppb	99

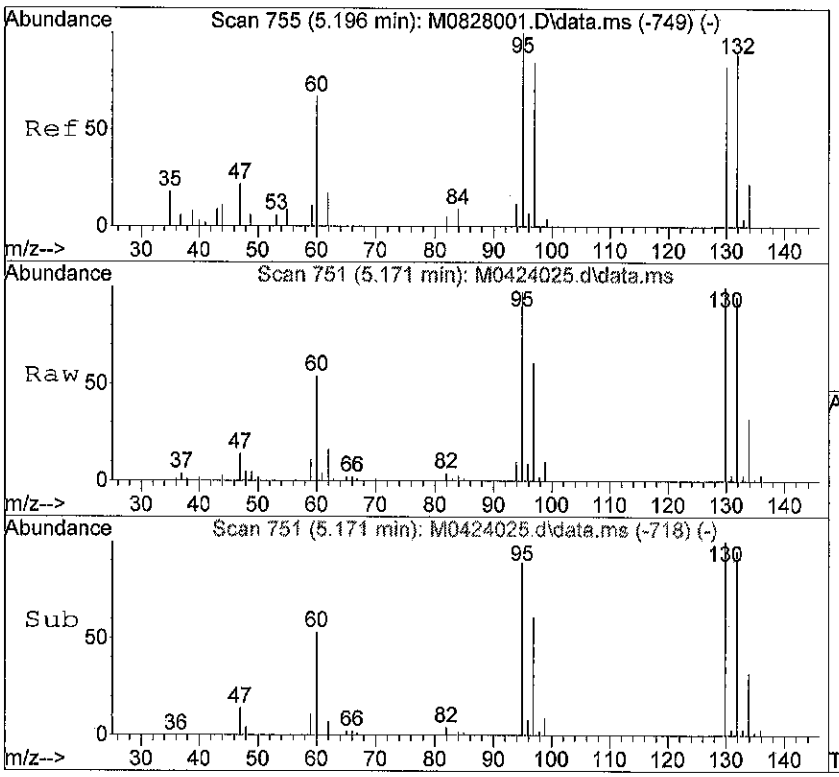
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424025.d
Acq On : 24 Apr 2014 5:51 pm
Operator :
Sample : 04-167-03b
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Apr 25 10:53:44 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

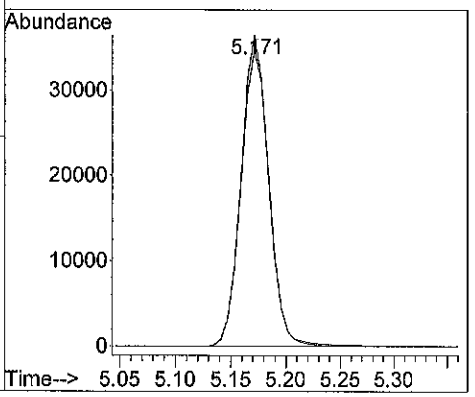




#29
Trichloroethene
Concen: 1.84 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0424025.d
Acq: 24 Apr 2014 5:51 pm

Tgt Ion:130 Resp: 63122

Ion	Ratio	Lower	Upper
130	100		
132	97.7	77.0	115.6



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424026.d
Acq On : 24 Apr 2014 6:14 pm
Operator :
Sample : 04-167-04b
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Apr 25 10:54:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

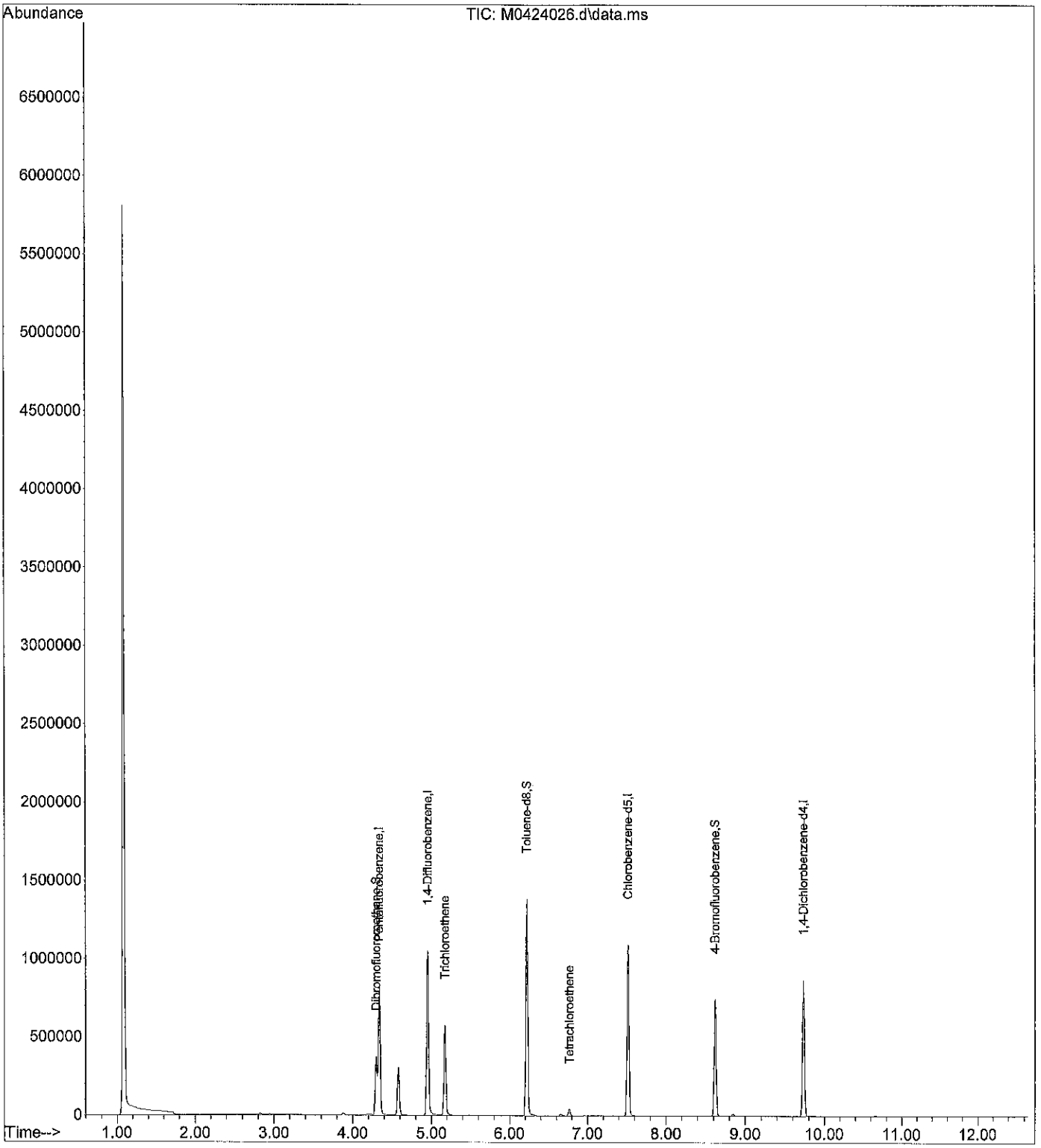
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	538958	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	770087	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	607115	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246364	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	204634	8.34	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 83.40%			
36) Toluene-d8	6.220	98	864724	9.53	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.30%			
54) 4-Bromofluorobenzene	8.622	95	252354	9.36	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.60%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	185778	5.47	ppb	98
41) Tetrachloroethene	6.769	166	13396	0.40	ppb	94

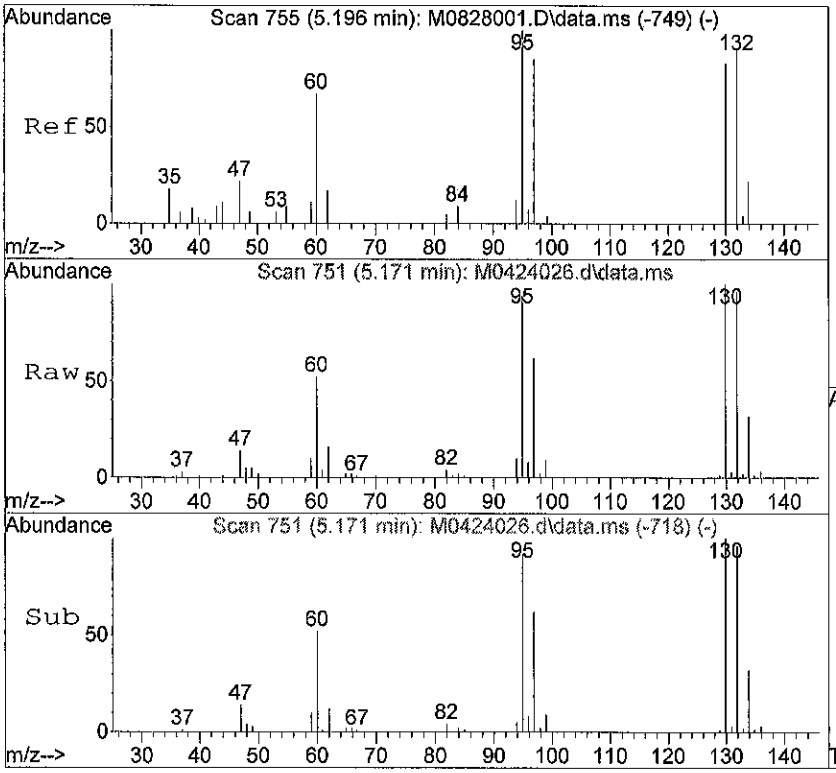
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424026.d
Acq On : 24 Apr 2014 6:14 pm
Operator :
Sample : 04-167-04b
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Apr 25 10:54:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

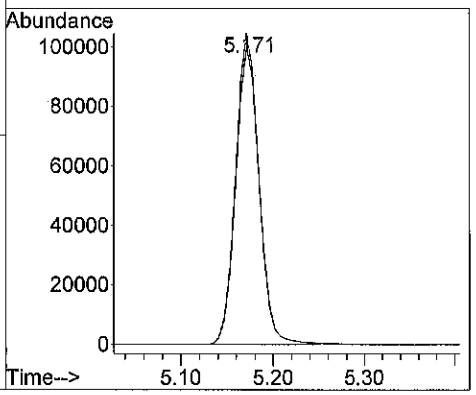


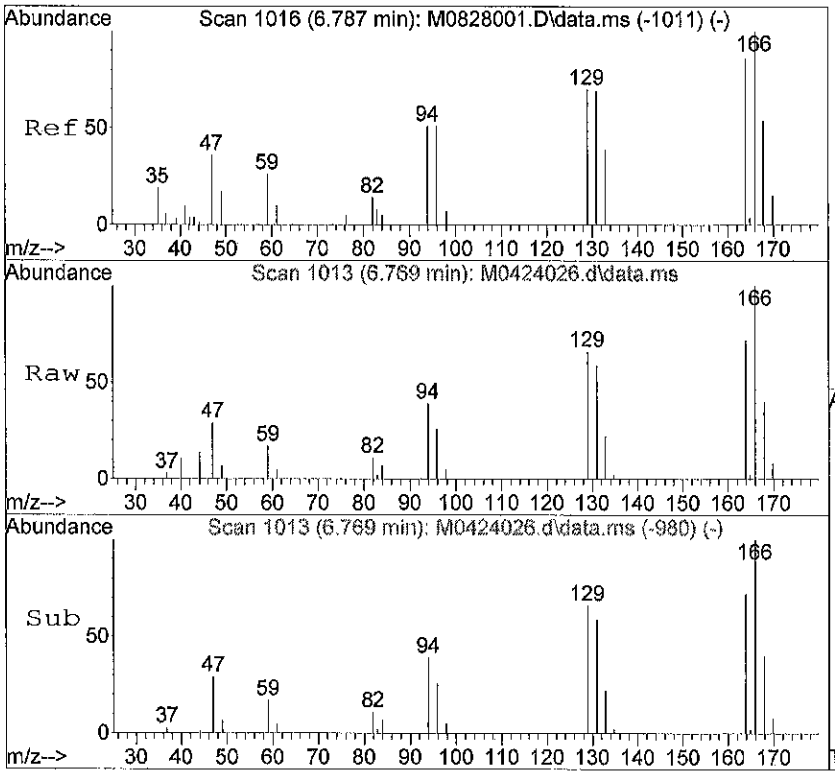


#29
Trichloroethene
Concen: 5.47 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0424026.d
Acq: 24 Apr 2014 6:14 pm

Tgt Ion:130 Resp: 185778

Ion	Ratio	Lower	Upper
130	100		
132	94.8	77.0	115.6

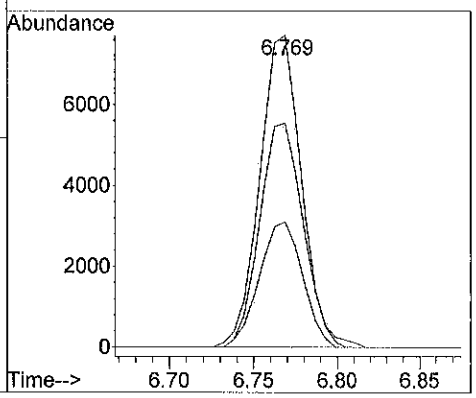




#41
Tetrachloroethene
Concen: 0.40 ppb
RT: 6.769 min Scan# 1013
Delta R.T. -0.000 min
Lab File: M0424026.d
Acq: 24 Apr 2014 6:14 pm

Tgt Ion:166 Resp: 13396

Ion	Ratio	Lower	Upper
166	100		
168	41.5	37.4	56.0
164	74.4	62.7	94.1



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424027.d
Acq On : 24 Apr 2014 6:38 pm
Operator :
Sample : 04-167-05b
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Apr 25 10:54:53 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

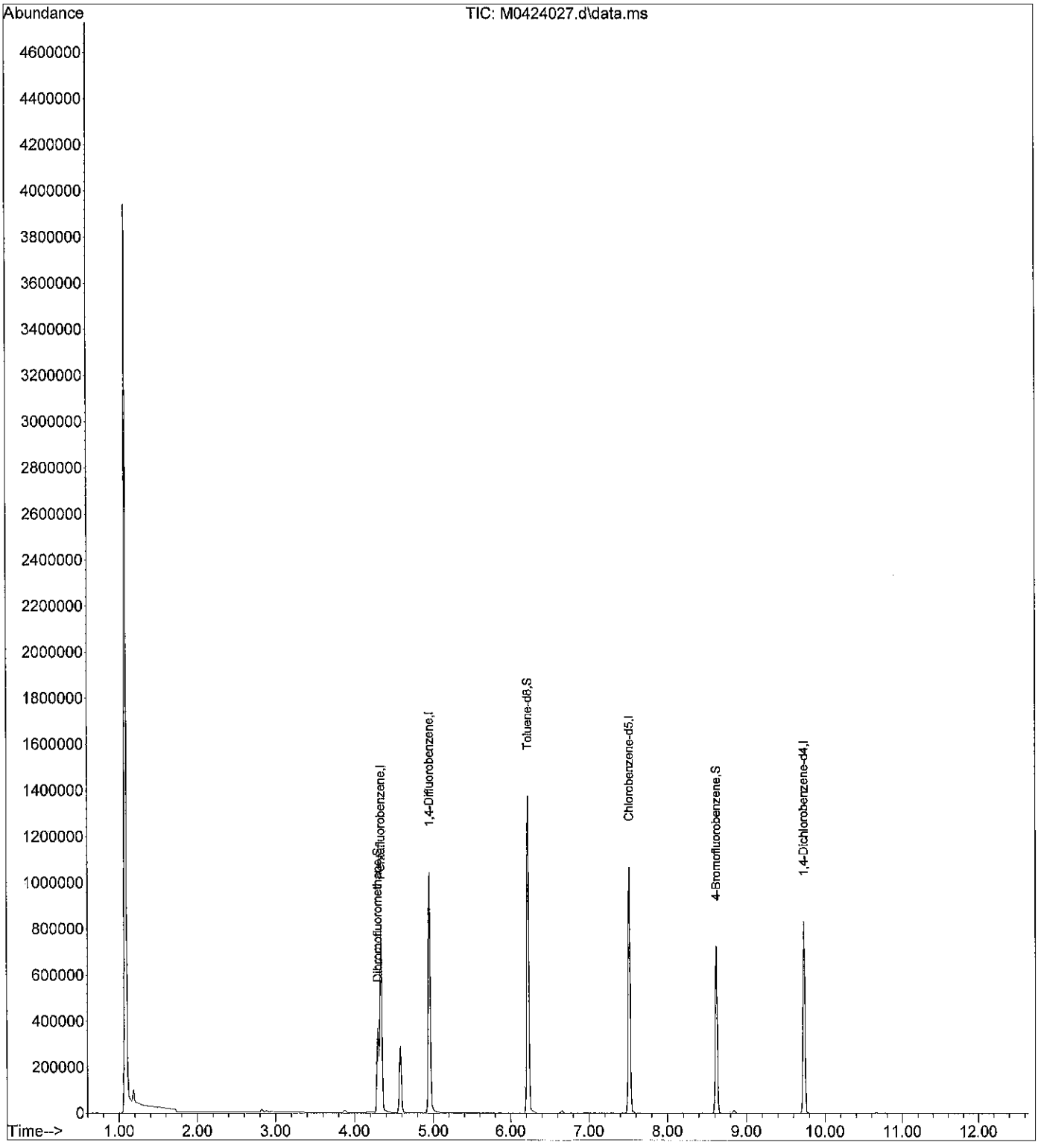
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	538380	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	766249	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	595483	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	234954	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	202109	8.24	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 82.40%			
36) Toluene-d8	6.220	98	846853	9.38	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.80%			
54) 4-Bromofluorobenzene	8.622	95	244343	9.24	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.40%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424027.d
Acq On : 24 Apr 2014 6:38 pm
Operator :
Sample : 04-167-05b
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Apr 25 10:54:53 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424028.d
Acq On : 24 Apr 2014 7:01 pm
Operator :
Sample : 04-167-06b
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Apr 25 10:55:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

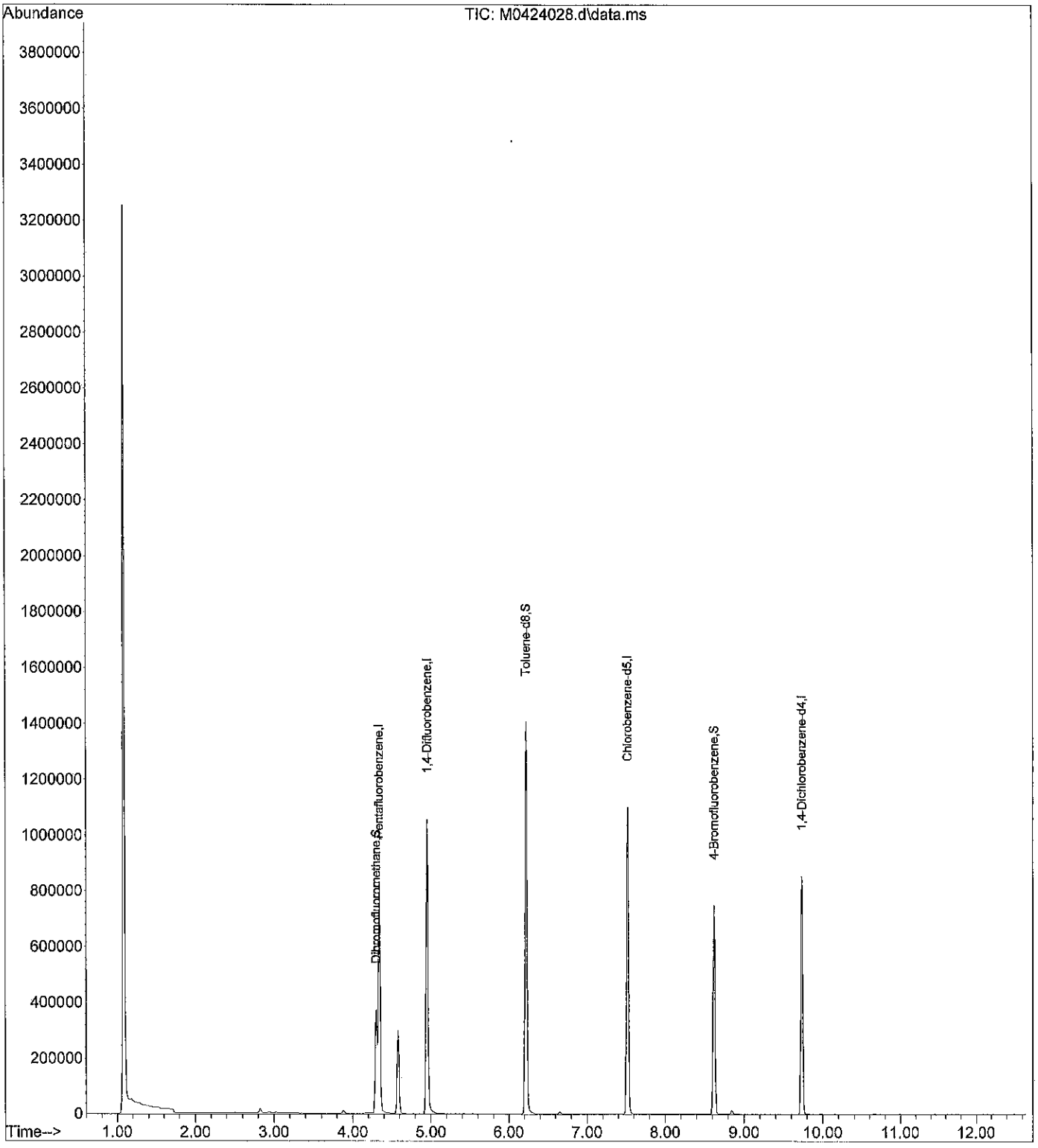
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	537983	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	777988	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	608428	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	239834	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	207030	8.45	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.50%			
36) Toluene-d8	6.220	98	865844	9.44	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 94.40%			
54) 4-Bromofluorobenzene	8.622	95	250869	9.29	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.90%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424028.d
Acq On : 24 Apr 2014 7:01 pm
Operator :
Sample : 04-167-06b
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Apr 25 10:55:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424011.d
Acq On : 24 Apr 2014 12:03 pm
Operator :
Sample : MB0424W1
Misc :
ALS Vial : 11 Sample Multiplier: 1

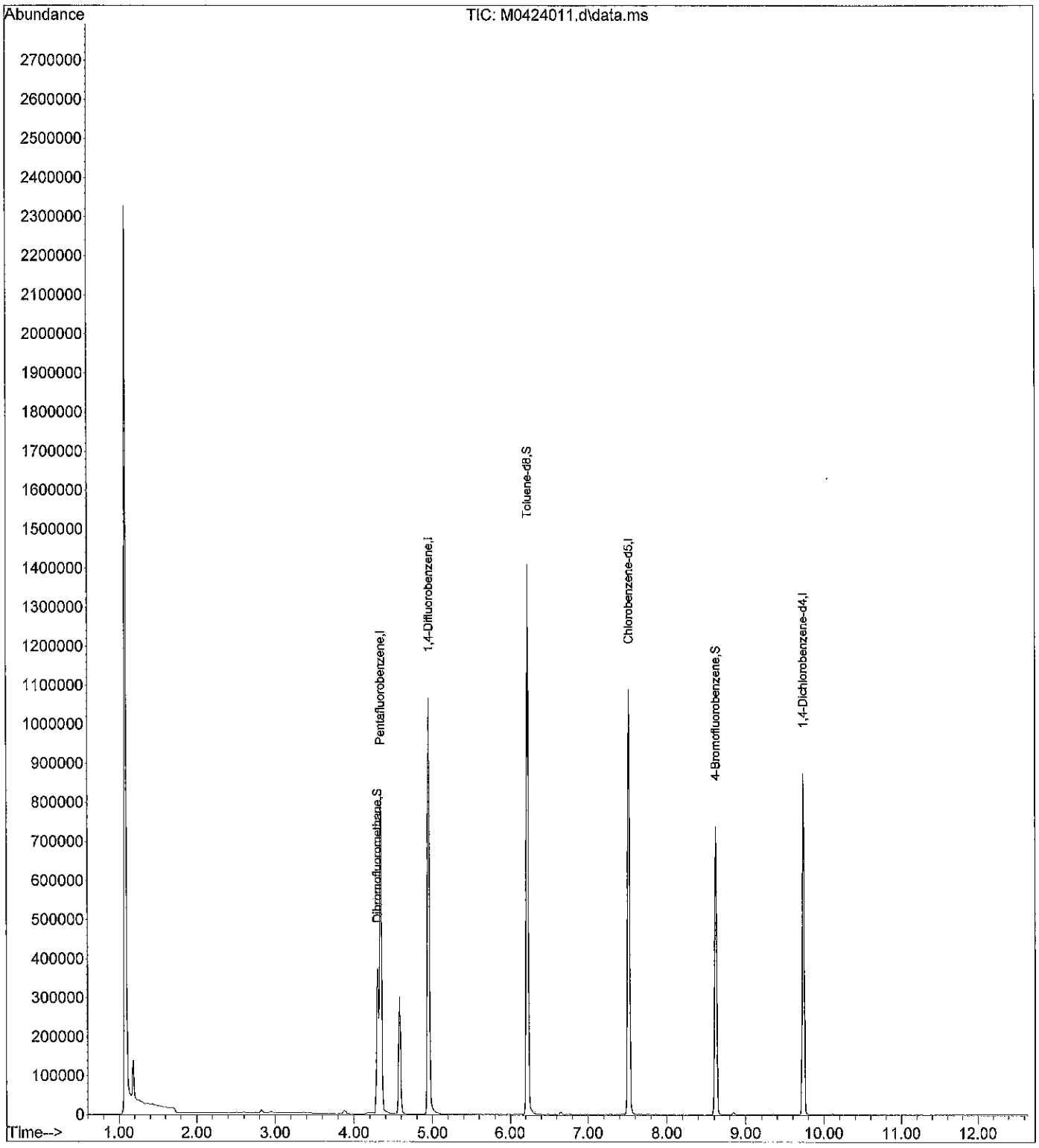
Quant Time: Apr 24 12:58:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	546057	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	785812	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	609082	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	242258	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	203928	8.20	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 82.00%			
36) Toluene-d8	6.220	98	867141	9.36	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.60%			
54) 4-Bromofluorobenzene	8.622	95	251135	9.29	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.90%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424011.d
Acq On : 24 Apr 2014 12:03 pm
Operator :
Sample : MB0424W1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 24 12:58:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424008.d
Acq On : 24 Apr 2014 10:44 am
Operator :
Sample : SB0424W1
Misc : V3-125-5
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 24 11:21:02 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

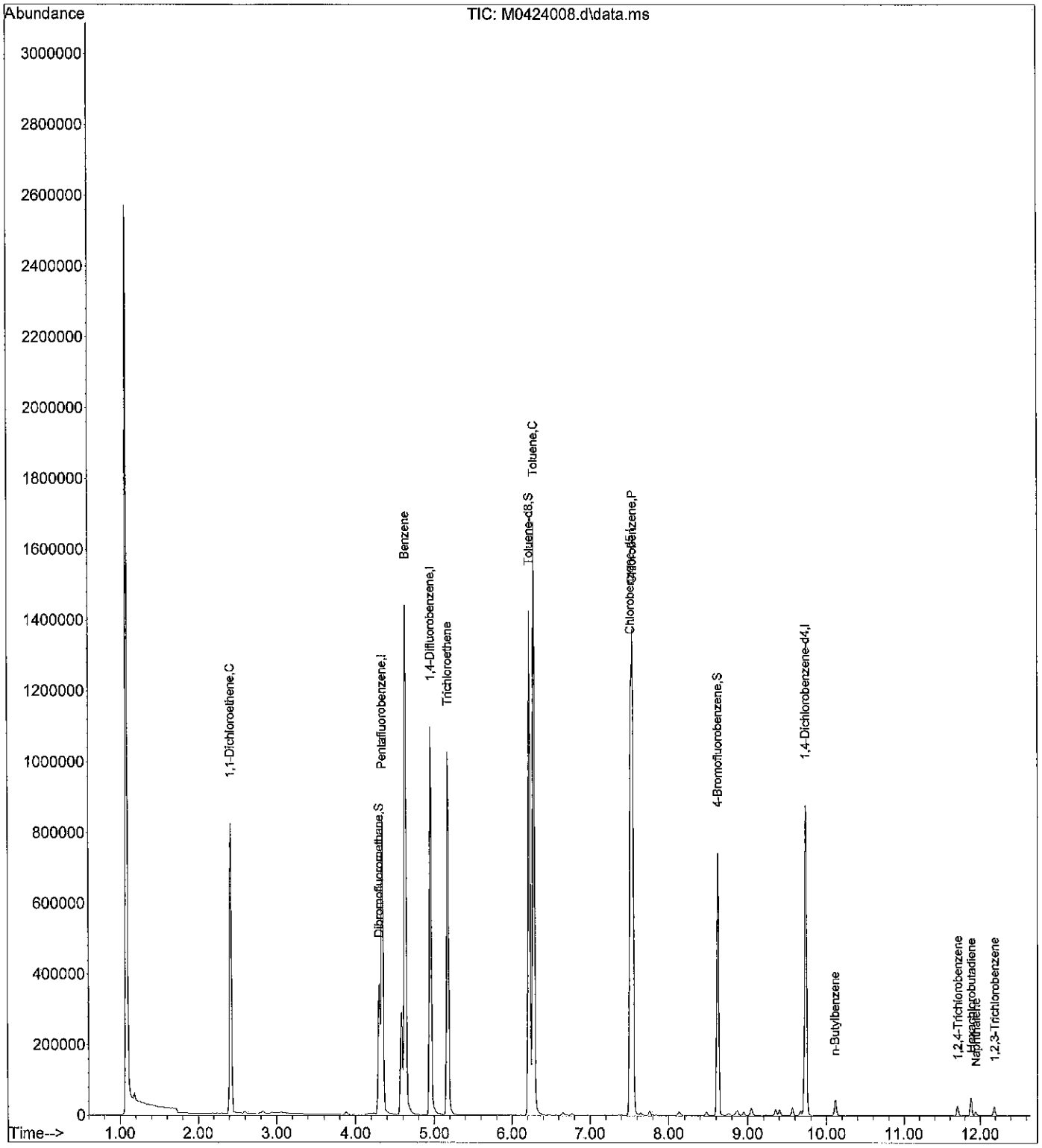
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	556225	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	819272	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	607674	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	239241	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	204446	8.07	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.70%				
36) Toluene-d8	6.220	98	883561	9.15	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 91.50%				
54) 4-Bromofluorobenzene	8.622	95	249516	9.25	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.50%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	527517	8.25	ppb		99
26) Benzene	4.629	78	1066577	8.37	ppb		99
29) Trichloroethene	5.171	130	322193	8.92	ppb		99
37) Toluene	6.275	91	1166121	8.75	ppb		100
46) Chlorobenzene	7.543	112	696506	10.29	ppb		99
70) n-Butylbenzene	10.109	91	19309	0.26	ppb		96
72) 1,2,4-Trichlorobenzene	11.707	180	10424	1.39	ppb		91
73) Hexachlorobutadiene	11.883	225	11339	1.62	ppb		96
74) Naphthalene	11.944	128	9442	1.06	ppb	#	91
75) 1,2,3-Trichlorobenzene	12.188	180	8879	1.93	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424008.d
Acq On : 24 Apr 2014 10:44 am
Operator :
Sample : SB0424W1
Misc : V3-125-5
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 24 11:21:02 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424009.d
Acq On : 24 Apr 2014 11:08 am
Operator :
Sample : SBD0424W1
Misc : V3-125-5
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 24 11:23:38 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

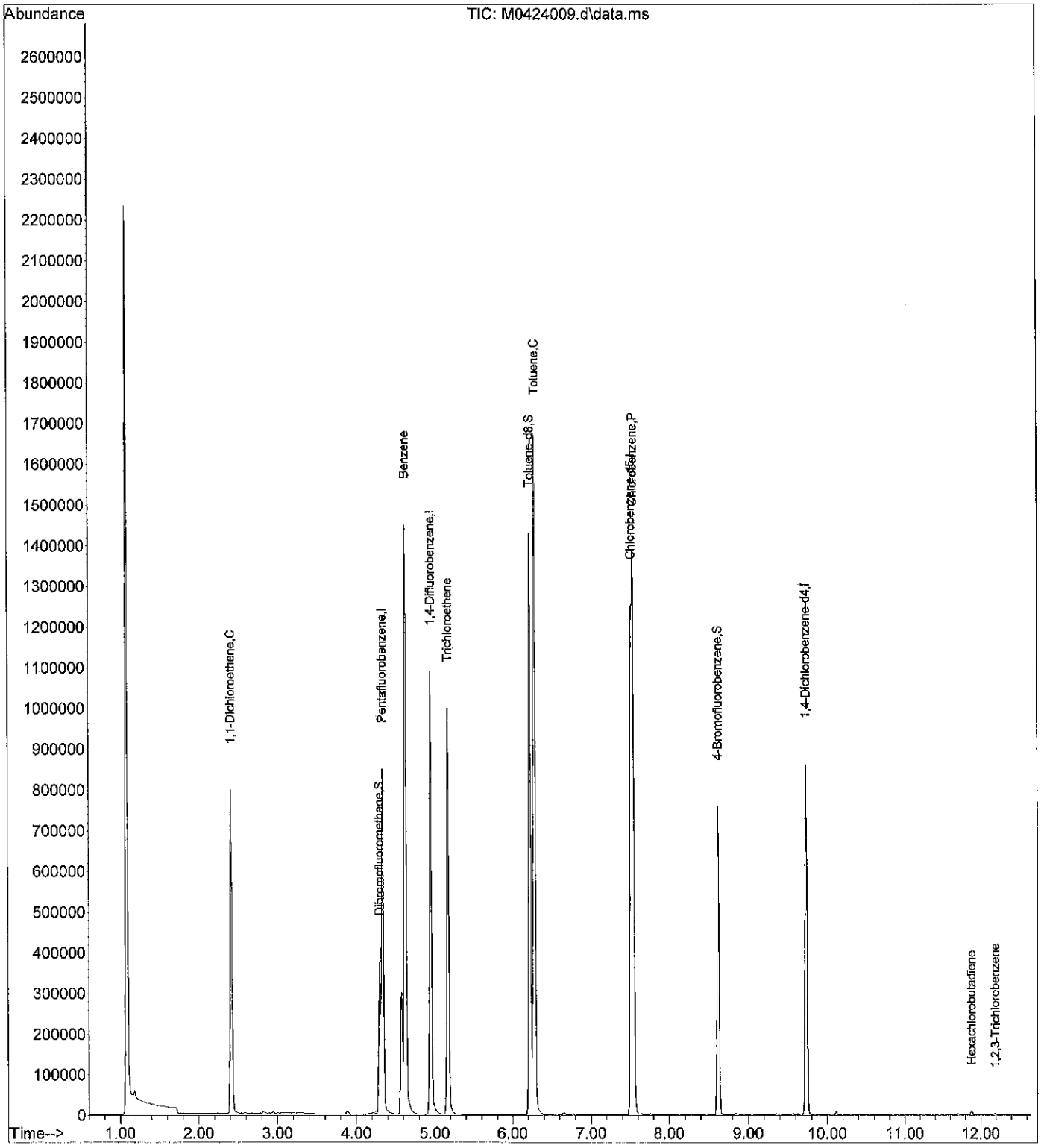
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	559404	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	818347	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	621360	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	242217	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	204542	8.03	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.30%			
36) Toluene-d8	6.220	98	895226	9.28	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 92.80%			
54) 4-Bromofluorobenzene	8.622	95	258476	9.37	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.70%			
Target Compounds						Qvalue
8) 1,1-Dichloroethene	2.416	61	506519	7.88	ppb	98
26) Benzene	4.629	78	1066762	8.32	ppb	99
29) Trichloroethene	5.171	130	320867	8.89	ppb	100
37) Toluene	6.281	91	1167571	8.77	ppb	99
46) Chlorobenzene	7.543	112	707235	10.22	ppb	100
73) Hexachlorobutadiene	11.877	225	2593	0.37	ppb	94
75) 1,2,3-Trichlorobenzene	12.188	180	1324	0.39	ppb	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424009.d
Acq On : 24 Apr 2014 11:08 am
Operator :
Sample : SBD0424W1
Misc : V3-125-5
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 24 11:23:38 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Compound List Report Morris

Method Path : C:\msdchem\1\methods\ .
Method File : M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014
Response Via : Initial Calibration

Total Cpnds : 75

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene	168	4.336	1.000	A	0	A	B
2		Dichlorodifluoromethane	85	1.209	0.279	A	1	A	B
3	P	Chloromethane	50	1.343	0.310	A	1	A	B
4	C	Vinyl Chloride	62	1.428	0.329	A	1	A	B
5		Bromomethane	96	1.690	0.390	A	1	A	B
6		Chloroethane	64	1.770	0.408	A	1	A	B
7		Trichlorofluoromethane	101	1.977	0.456	A	1	A	B
8	C	1,1-Dichloroethene	61	2.416	0.557	A	1	A	B
9		Acetone	43	2.471	0.570	L	1	A	B
10		Iodomethane	142	2.538	0.585	L	1	A	B
11		Carbon Disulfide	76	2.593	0.598	A	1	A	B
12		Methylene Chloride	49	2.824	0.651	A	1	A	B
13		(trans) 1,2-Dichloroethene	61	3.056	0.705	A	1	A	B
14		Methyl t-Butyl Ether	73	3.068	0.708	A	3	A	B
15	P	1,1-Dichloroethane	63	3.410	0.786	A	1	A	B
16		Vinyl Acetate	43	3.458	0.798	A	1	A	B
17		2,2-Dichloropropane	77	3.897	0.899	A	1	A	B
18		(cis) 1,2-Dichloroethene	61	3.897	0.899	A	1	A	B
19		2-Butanone	43	3.922	0.905	A	1	A	B
20		Bromochloromethane	130	4.098	0.945	A	3	A	B
21	C	Chloroform	83	4.165	0.961	A	1	A	B
22		1,1,1-Trichloroethane	97	4.318	0.996	A	1	A	B
23	S	Dibromofluoromethane	111	4.300	0.992	A	1	A	B
24		Carbon Tetrachloride	117	4.458	1.028	A	1	A	B
25		1,1-Dichloropropene	75	4.452	1.027	A	1	A	B
26		Benzene	78	4.629	1.068	A	1	A	B
27		1,2-Dichloroethane	62	4.641	1.070	A	1	A	B
28	I	1,4-Difluorobenzene	114	4.952	1.000	A	0	A	B
29		Trichloroethene	130	5.171	1.044	A	1	A	B
30	C	1,2-Dichloropropane	63	5.360	1.082	A	1	A	B
31		Dibromomethane	174	5.464	1.103	A	2	A	B
32		Bromodichloromethane	83	5.598	1.130	A	1	A	B
33		2-Chloroethyl Vinyl Ether	63	5.860	1.183	A	1	A	B
34		(cis) 1,3-Dichloropropene	75	5.982	1.208	A	1	A	B
35		Methyl Isobutyl Ketone	43	6.122	1.236	A	3	A	B
36	S	Toluene-d8	98	6.220	1.256	A	1	A	B
37	C	Toluene	91	6.275	1.267	A	1	A	B
38	I	Chlorobenzene-d5	117	7.518	1.000	A	1	A	B
39		(trans) 1,3-Dichloropropene	75	6.470	0.861	A	1	A	B
40		1,1,2-Trichloroethane	97	6.635	0.883	A	1	A	B
41		Tetrachloroethene	166	6.769	0.900	A	2	A	B
42		1,3-Dichloropropane	76	6.787	0.903	A	1	A	B
43		2-Hexanone	43	6.866	0.913	A	3	A	B
44		Dibromochloromethane	129	6.988	0.930	A	2	A	B
45		1,2-Dibromoethane	107	7.092	0.943	A	1	A	B
46	P	Chlorobenzene	112	7.543	1.003	A	1	A	B
47		1,1,1,2-Tetrachloroethane	133	7.616	1.013	A	2	A	B
48	C	Ethylbenzene	91	7.646	1.017	A	1	A	B
49		m,p-Xylene	91	7.756	1.032	A	1	A	B
50		o-Xylene	91	8.128	1.081	A	1	A	B
51		Styrene	104	8.140	1.083	A	0	A	B
52	P	Bromoform	173	8.311	1.105	A	2	A	B
53		Isopropylbenzene	105	8.476	1.127	A	1	A	B
54	S	4-Bromofluorobenzene	95	8.616	1.146	A	2	A	B

55 I	1,4-Dichlorobenzene-d4	152	9.731	1.000	A	1	A	B
56	Bromobenzene	156	8.762	0.900	A	1	A	B
57 P	1,1,2,2-Tetrachloroethane	83	8.762	0.900	A	1	A	B
58	1,2,3-Trichloropropane	75	8.799	0.904	A	1	A	B
59	n-Propylbenzene	91	8.872	0.912	A	1	A	B
60	2-Chlorotoluene	126	8.951	0.920	A	1	A	B
61	4-Chlorotoluene	126	9.055	0.931	A	1	A	B
62	1,3,5-Trimethylbenzene	105	9.043	0.929	A	1	A	B
63	tert-Butylbenzene	119	9.353	0.961	A	1	A	B
64	1,2,4-Trimethylbenzene	105	9.402	0.966	A	1	A	B
65	sec-Butylbenzene	105	9.567	0.983	A	1	A	B
66	1,3-Dichlorobenzene	146	9.670	0.994	A	1	A	B
67	p-Isopropyltoluene	119	9.713	0.998	A	1	A	B
68	1,4-Dichlorobenzene	146	9.756	1.003	A	1	A	B
69	1,2-Dichlorobenzene	146	10.116	1.040	A	1	A	B
70	n-Butylbenzene	91	10.109	1.039	A	1	A	B
71	1,2-Dibromo-3-chloropropane	157	10.884	1.118	A	2	A	B
72	1,2,4-Trichlorobenzene	180	11.701	1.202	A	2	A	B
73	Hexachlorobutadiene	225	11.883	1.221	A	2	A	B
74	Naphthalene	128	11.944	1.227	A	1	A	B
75	1,2,3-Trichlorobenzene	180	12.182	1.252	L	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

M140328W.M Fri Mar 28 13:13:22 2014

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014
Response Via : Initial Calibration

Calibration Files
.2 =M0328003.d 1 =M0328004.d 2 =M0328005.d 5 =M0328006.d 10 =M0328007.d 25 =M0328009.d
50 =M0328011.d .1 =M0716005.d

		Compound	.2	1	2	5	10	25	50	.1	Avg	%RSD
		ISTD										
1)	I	Pentafluorobenzene										
2)		Dichlorodifluo...	0.731	0.674	0.745	0.721	0.732	0.902	0.866		0.767#	10.86
3)	P	Chloromethane	1.322	1.085	1.163	1.119	1.136	1.255	1.220		1.186	7.07
4)	C	Vinyl Chloride	1.043	0.912	0.981	0.959	0.988	1.068	1.043		0.999#	5.52#
5)		Bromomethane	0.556	0.485	0.468	0.441	0.450	0.468	0.455		0.475#	8.17
6)		Chloroethane	0.625	0.496	0.509	0.492	0.506	0.527	0.513		0.524#	8.82
7)		Trichlorofluor...	1.156	1.019	1.056	1.033	1.070	1.117	1.080		1.076#	4.44
8)	C	1,1-Dichloroet...	1.241	1.098	1.119	1.116	1.139	1.185	1.149		1.150#	4.28#
9)		Acetone		0.091	0.094	0.079	0.071	0.071	0.065		0.079#	15.41
10)		Iodomethane		0.538	0.633	0.703	0.753	0.828	0.787		0.707#	15.14
11)		Carbon Disulfide	1.915	1.725	1.786	1.757	1.809	1.917	1.887		1.828#	4.27
12)		Methylene Chlo...	1.192	0.974	0.974	0.934	0.942	0.966	0.942		0.989#	9.22
13)		(trans) 1,2-Di...	1.274	1.090	1.151	1.091	1.147	1.190	1.161		1.158#	5.43
14)		Methyl t-Butyl...	0.739	0.711	0.732	0.724	0.712	0.737	0.748		0.729#	1.91
15)	P	1,1-Dichloroet...	1.345	1.272	1.313	1.288	1.313	1.365	1.339		1.319	2.47
16)		Vinyl Acetate		0.614	0.569	0.542	0.518	0.545			0.558#	6.53
17)		2,2-Dichloropr...	0.870	0.833	0.840	0.814	0.843	0.864	0.832		0.842#	2.31
18)		(cis) 1,2-Dich...	1.198	1.187	1.196	1.189	1.212	1.281	1.265		1.218#	3.17
19)		2-Butanone	0.125	0.124	0.129	0.120	0.116	0.119	0.113		0.121#	4.60
20)		Bromochloromet...	0.248	0.246	0.258	0.251	0.256	0.264	0.263		0.255#	2.79
21)	C	Chloroform	1.120	1.006	1.026	1.020	1.022	1.063	1.041		1.043#	3.72#
22)		1,1,1-Trichlor...	1.045	0.986	0.979	0.971	1.000	1.040	1.016		1.005#	2.90
23)	S	Dibromofluorom...	0.432	0.452	0.466	0.464	0.455	0.460	0.459		0.455#	2.52
24)		Carbon Tetrach...	1.007	0.907	0.921	0.894	0.918	0.975	0.953		0.939#	4.33
25)		1,1-Dichloropr...	0.957	0.826	0.855	0.825	0.850	0.898	0.887		0.871#	5.40
26)		Benzene	2.426	2.214	2.226	2.215	2.261	2.360	2.336		2.291#	3.64
27)		1,2-Dichloroet...	0.629	0.625	0.641	0.627	0.635	0.651	0.634		0.634#	1.46
		ISTD										
28)	I	1,4-Difluorobenzene										
29)		Trichloroethene	0.485	0.417	0.432	0.425	0.433	0.460	0.435		0.441#	5.29
30)	C	1,2-Dichloropr...	0.380	0.396	0.404	0.399	0.397	0.420	0.421		0.403#	3.55#
31)		Dibromomethane	0.113	0.127	0.135	0.131	0.129	0.135	0.134		0.129#	6.02
32)		Bromodichlorom...	0.366	0.406	0.402	0.392	0.396	0.417	0.423		0.400#	4.69
33)		2-Chloroethyl ...		0.019	0.022	0.020	0.020	0.022	0.026		0.022#	11.46
34)		(cis) 1,3-Dich...	0.357	0.379	0.399	0.410	0.417	0.457	0.460		0.411#	9.25
35)		Methyl Isobuty...	0.150	0.133	0.150	0.144	0.139	0.152	0.162		0.147#	6.45
36)	S	Toluene-d8	1.157	1.169	1.180	1.181	1.176	1.184	1.201		1.178#	1.16
37)	C	Toluene	1.762	1.581	1.569	1.556	1.567	1.668	1.689		1.628#	4.88#

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140328W.M
Title :

38)	I	Chlorobenzene-d5	ISTD								
39)		(trans) 1,3-Di...	0.329	0.326	0.342	0.341	0.362	0.382	0.382	0.352#	6.74
40)		1,1,2-Trichlor...	0.258	0.200	0.201	0.200	0.200	0.213	0.208	0.212#	10.00
41)		Tetrachloroethene	0.585	0.541	0.533	0.515	0.537	0.563	0.545	0.546#	4.10
42)		1,3-Dichloropr...	0.363	0.346	0.364	0.369	0.369	0.371	0.386	0.377	0.368#	3.43
43)		2-Hexanone	0.142	0.125	0.116	0.123	0.117	0.132	0.130	0.126#	7.09
44)		Dibromochlorom...	0.253	0.266	0.266	0.270	0.273	0.293	0.293	0.273#	5.38
45)		1,2-Dibromoethane	0.177	0.186	0.186	0.186	0.183	0.193	0.185	0.185#	2.57
46)	P	Chlorobenzene	1.255	1.079	1.070	1.047	1.080	1.139	1.123	1.113	6.29
47)		1,1,1,2-Tetrac...	0.341	0.354	0.343	0.353	0.362	0.379	0.379	0.359#	4.32
48)	C	Ethylbenzene	2.325	1.997	2.059	2.064	2.191	2.361	2.310	2.186#	6.78#
49)		m,p-Xylene	1.605	1.490	1.545	1.591	1.662	1.789	1.770	1.636#	6.82
50)		o-Xylene	1.494	1.366	1.422	1.447	1.507	1.624	1.603	1.495#	6.27
51)		Styrene	1.023	0.990	1.056	1.103	1.149	1.243	1.236	1.114#	8.97
52)	P	Bromoform	0.125	0.127	0.132	0.139	0.140	0.153	0.158	0.139	9.15
53)		Isopropylbenzene	1.831	1.673	1.754	1.804	1.913	2.064	2.019	1.865#	7.57
54)	S	4-Bromofluorob...	0.413	0.435	0.446	0.452	0.454	0.456	0.452	0.444#	3.48
55)	I	1,4-Dichlorobenzen...	ISTD								
56)		Bromobenzene	1.034	0.877	0.855	0.847	0.875	0.937	0.909	0.905#	7.16
57)	P	1,1,2,2-Tetrac...	0.459	0.445	0.425	0.427	0.414	0.440	0.458	0.438	3.93
58)		1,2,3-Trichlor...	0.352	0.338	0.369	0.338	0.335	0.349	0.341	0.346#	3.40
59)		n-Propylbenzene	6.049	4.935	4.930	4.942	5.346	5.647	5.494	5.335#	8.07
60)		2-Chlorotoluene	1.149	0.992	0.967	0.946	1.025	1.084	1.032	1.028#	6.82
61)		4-Chlorotoluene	1.079	0.964	0.958	0.954	1.011	1.056	1.040	1.009#	5.06
62)		1,3,5-Trimethy...	3.976	3.290	3.584	3.576	3.875	4.120	4.024	3.778#	7.96
63)		tert-Butylbenzene	3.231	2.588	2.781	2.779	3.103	3.224	3.128	2.977#	8.60
64)		1,2,4-Trimethy...	3.625	3.172	3.266	3.380	3.588	3.771	3.711	3.502#	6.57
65)		sec-Butylbenzene	4.557	3.886	3.983	4.040	4.421	4.650	4.517	4.293#	7.30
66)		1,3-Dichlorobe...	1.683	1.484	1.540	1.486	1.544	1.611	1.593	1.563#	4.57
67)		p-Isopropyltol...	3.569	2.941	3.184	3.180	3.473	3.704	3.617	3.381#	8.34
68)		1,4-Dichlorobe...	1.842	1.506	1.586	1.565	1.606	1.679	1.655	1.634#	6.61
69)		1,2-Dichlorobe...	1.147	1.061	1.102	1.111	1.127	1.195	1.194	1.134#	4.31
70)		n-Butylbenzene	3.362	2.757	2.828	2.927	3.122	3.314	3.297	3.086#	8.09
71)		1,2-Dibromo-3-...		0.040	0.049	0.048	0.050	0.056	0.056	0.050#	11.77
72)		1,2,4-Trichlor...	0.294	0.266	0.307	0.323	0.312	0.332	0.356	0.313#	9.10
73)		Hexachlorobuta...	0.353	0.269	0.277	0.291	0.281	0.290	0.290	0.293#	9.51
74)		Naphthalene		0.325	0.338	0.368	0.366	0.397	0.439	0.372#	11.18
75)		1,2,3-Trichlor...	0.123	0.149	0.177	0.203	0.199	0.196	0.211	0.180#	18.07

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	485934	10.00 ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	740470	10.00 ppb		0.00
38) Chlorobenzene-d5	7.518	117	555715	10.00 ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	198284	10.00 ppb		0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.293	111	209890	9.62 ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 96.20%			
36) Toluene-d8	6.220	98	856932	9.84 ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 98.40%			
54) 4-Bromofluorobenzene	8.616	95	229303	9.00 ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 90.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	7107	0.19 ppb		100
3) Chloromethane	1.343	50	12848	0.22 ppb		100
4) Vinyl Chloride	1.428	62	10132	0.21 ppb		92
5) Bromomethane	1.684	96	5406	0.24 ppb		94
6) Chloroethane	1.763	64	6077	0.24 ppb		98
7) Trichlorofluoromethane	1.977	101	11235	0.22 ppb		97
8) 1,1-Dichloroethene	2.416	61	12064	0.22 ppb		99
9) ~~Acetone~~	2.465	43	3046	0.32 ppb		92
10) ~~Iodomethane~~	2.538	142	4255	0.53 ppb		96
11) Carbon Disulfide	2.593	76	18609	0.21 ppb		95
12) Methylene Chloride	2.824	49	11589	0.24 ppb		97
13) (trans) 1,2-Dichloroet...	3.056	61	12377	0.23 ppb		99
14) Methyl t-Butyl Ether	3.068	73	7179	0.20 ppb	#	88
15) 1,1-Dichloroethane	3.410	63	13071	0.21 ppb		96
16) ~~Vinyl Acetate~~	3.458	43	7482	0.66 ppb	#	81
17) 2,2-Dichloropropane	3.891	77	8459	0.20 ppb	#	78
18) (cis) 1,2-Dichloroethene	3.897	61	11646	0.20 ppb		96
19) 2-Butanone	3.916	43	1217	0.21 ppb	#	52
20) Bromochloromethane	4.092	130	2414	0.20 ppb		97
21) Chloroform	4.165	83	10889	0.22 ppb		98
22) 1,1,1-Trichloroethane	4.312	97	10155	0.21 ppb	#	1
24) Carbon Tetrachloride	4.452	117	9784	0.22 ppb		98
25) 1,1-Dichloropropene	4.452	75	9303	0.22 ppb		95
26) Benzene	4.629	78	23574	0.22 ppb		97
27) 1,2-Dichloroethane	4.641	62	6112	0.20 ppb		94
29) Trichloroethene	5.171	130	7176	0.23 ppb		90
30) 1,2-Dichloropropane	5.360	63	5631	0.19 ppb		95
31) Dibromomethane	5.458	174	1675	0.17 ppb	#	91
32) Bromodichloromethane	5.598	83	5416	0.18 ppb		91
33) ~~2-Chloroethyl~~ Vinyl Ether	5.860	63	266	2.33 ppb	#	66
34) (cis) 1,3-Dichloropropene	5.982	75	5288	0.17 ppb		97
35) Methyl Isobutyl Ketone	6.122	43	2224	0.21 ppb	#	86
37) Toluene	6.275	91	26096	0.22 ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	3652	0.19 ppb		95
40) 1,1,2-Trichloroethane	6.634	97	2870	0.25 ppb	#	81
41) Tetrachloroethene	6.763	166	6500	0.21 ppb		92
42) 1,3-Dichloropropane	6.787	76	4030	0.20 ppb		90
43) 2-Hexanone	6.866	43	1575	0.23 ppb	#	69
44) Dibromochloromethane	6.988	129	2814	0.19 ppb		95

SP 3-28-14

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	1962	0.20	ppb		100
46) Chlorobenzene	7.543	112	13952	0.23	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	3793	0.19	ppb		84
48) Ethylbenzene	7.646	91	25838	0.21	ppb		100
49) m,p-Xylene	7.756	91	35667	0.38	ppb		97
50) o-Xylene	8.128	91	16600	0.19	ppb		100
51) Styrene	8.140	104	11365	0.18	ppb		100
52) Bromoform	8.311	173	1384	0.18	ppb		93
53) Isopropylbenzene	8.476	105	20353	0.19	ppb		96
56) Bromobenzene	8.762	156	4101	0.24	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	1819	0.22	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	1394	0.22	ppb	#	100
59) n-Propylbenzene	8.872	91	23987	0.24	ppb		96
60) 2-Chlorotoluene	8.951	126	4557	0.23	ppb		98
61) 4-Chlorotoluene	9.055	126	4278	0.22	ppb		96
62) 1,3,5-Trimethylbenzene	9.043	105	15766	0.21	ppb		96
63) tert-Butylbenzene	9.353	119	12815	0.22	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	14377	0.20	ppb		97
65) sec-Butylbenzene	9.567	105	18071	0.21	ppb		96
66) 1,3-Dichlorobenzene	9.670	146	6674	0.21	ppb		100
67) p-Isopropyltoluene	9.713	119	14152	0.20	ppb		98
68) 1,4-Dichlorobenzene	9.756	146	7304	0.22	ppb		92
69) 1,2-Dichlorobenzene	10.116	146	4547	0.19	ppb		99
70) n-Butylbenzene	10.109	91	13331	0.20	ppb		99
72) 1,2,4-Trichlorobenzene	11.707	180	1167	0.10	ppb		93
73) Hexachlorobutadiene	11.877	225	1401	0.12	ppb		95
74) Naphthalene	11.944	128	1039	0.61	ppb	#	72
75) 1,2,3-Trichlorobenzene	12.188	180	489	0.21	ppb	#	67

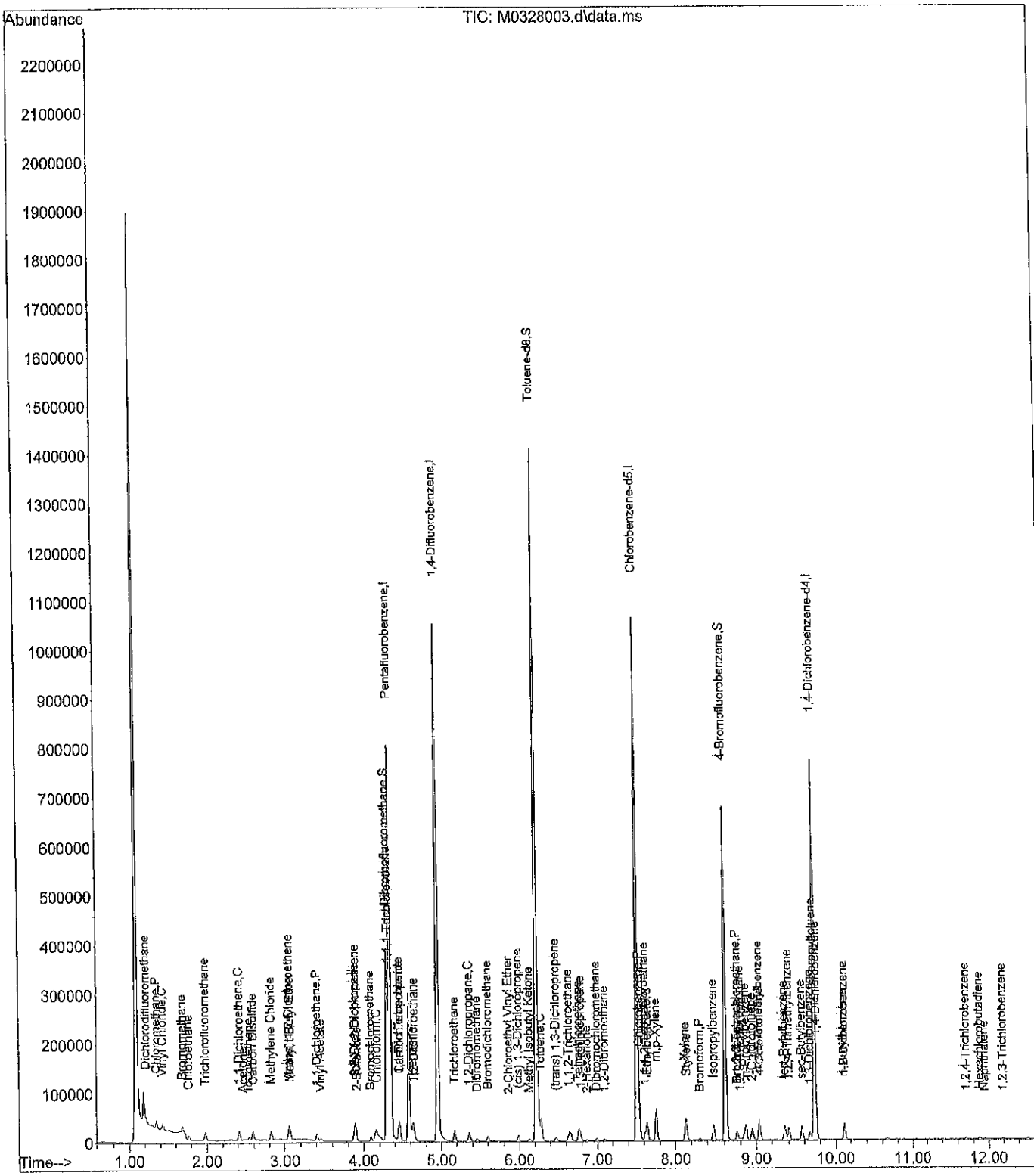
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SP 3.8874

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328003.d
Acq On : 28 Mar 2014 8:26 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 28 08:38:45 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	481933	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	739712	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	582356	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	231509	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	217611	10.05	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.50%				
36) Toluene-d8	6.220	98	864840	9.94	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.40%				
54) 4-Bromofluorobenzene	8.622	95	253379	9.49	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.208	85	32485	0.86	ppb		98
3) Chloromethane	1.343	50	52278	0.91	ppb		94
4) Vinyl Chloride	1.428	62	43937	0.93	ppb		97
5) Bromomethane	1.684	96	23394	1.06	ppb		100
6) Chloroethane	1.769	64	23889	0.96	ppb		100
7) Trichlorofluoromethane	1.977	101	49091	0.95	ppb		97
8) 1,1-Dichloroethene	2.416	61	52907	0.97	ppb		100
9) Acetone	2.470	43	4405	0.76	ppb		99
10) Iodomethane	2.537	142	25915	1.10	ppb		95
11) Carbon Disulfide	2.592	76	83153	0.97	ppb		100
12) Methylene Chloride	2.824	49	46955	0.99	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	52507	0.97	ppb		97
14) Methyl t-Butyl Ether	3.068	73	34289	0.98	ppb		96
15) 1,1-Dichloroethane	3.409	63	61308	0.98	ppb		99
16) Vinyl Acetate	3.458	43	29613	1.27	ppb		98
17) 2,2-Dichloropropane	3.891	77	40125	0.98	ppb		97
18) (cis) 1,2-Dichloroethene	3.897	61	57200	0.99	ppb		99
19) 2-Butanone	3.921	43	5999	1.04	ppb		92
20) Bromochloromethane	4.098	130	11861	0.97	ppb		99
21) Chloroform	4.165	83	48474	0.99	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	47516	0.98	ppb	#	1
24) Carbon Tetrachloride	4.458	117	43733	0.97	ppb		94
25) 1,1-Dichloropropene	4.452	75	39817	0.96	ppb		97
26) Benzene	4.629	78	106694	0.99	ppb		99
27) 1,2-Dichloroethane	4.641	62	30108	1.00	ppb		99
29) Trichloroethene	5.171	130	30865	0.98	ppb		99
30) 1,2-Dichloropropane	5.360	63	29302	0.98	ppb		100
31) Dibromomethane	5.464	174	9426	0.98	ppb		96
32) Bromodichloromethane	5.598	83	30058	1.02	ppb		97
33) 2-Chloroethyl Vinyl Ether	5.860	63	1418	3.82	ppb		99
34) (cis) 1,3-Dichloropropene	5.982	75	28003	0.90	ppb		98
35) Methyl Isobutyl Ketone	6.122	43	9833	0.91	ppb		97
37) Toluene	6.275	91	116964	0.97	ppb		97
39) (trans) 1,3-Dichloropr...	6.470	75	18996	0.93	ppb		96
40) 1,1,2-Trichloroethane	6.634	97	11672	0.96	ppb		94
41) Tetrachloroethene	6.768	166	31504	0.98	ppb		97
42) 1,3-Dichloropropane	6.787	76	20143	0.94	ppb		99
43) 2-Hexanone	6.866	43	7271	1.02	ppb	#	92
44) Dibromochloromethane	6.988	129	15481	0.97	ppb		95

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

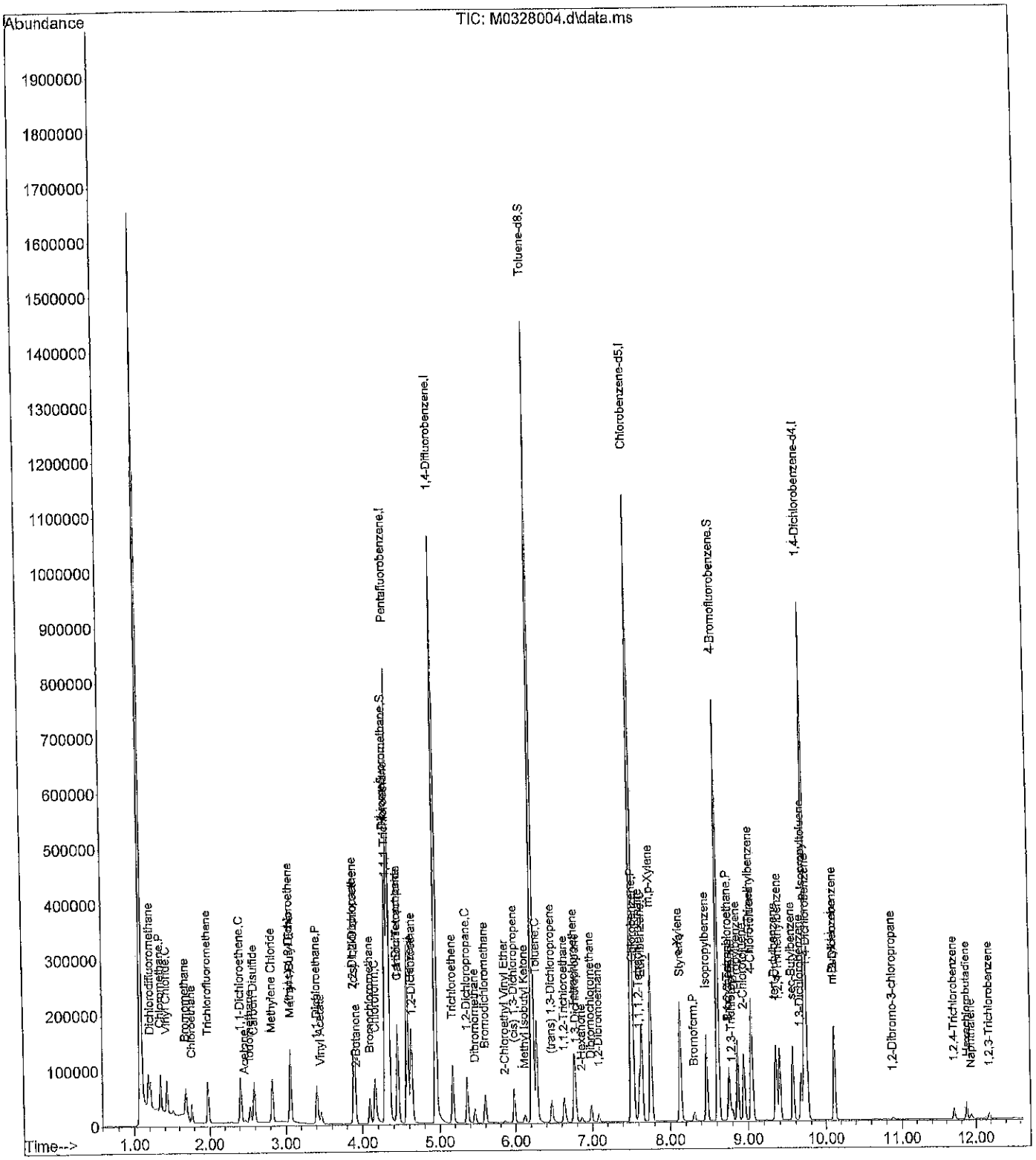
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.091	107	10813	1.03	ppb		89
46) Chlorobenzene	7.543	112	62839	0.97	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	20602	0.97	ppb		97
48) Ethylbenzene	7.646	91	116277	0.89	ppb		100
49) m,p-Xylene	7.756	91	173593	1.77	ppb		100
50) o-Xylene	8.128	91	79577	0.88	ppb		99
51) Styrene	8.140	104	57652	0.86	ppb		100
52) Bromoform	8.311	173	7371	0.89	ppb		96
53) Isopropylbenzene	8.475	105	97419	0.85	ppb		98
56) Bromobenzene	8.762	156	20310	1.04	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	10308	1.07	ppb		93
58) 1,2,3-Trichloropropane	8.798	75	7814	1.06	ppb	#	100
59) n-Propylbenzene	8.872	91	114247	0.97	ppb		99
60) 2-Chlorotoluene	8.951	126	22971	1.01	ppb		99
61) 4-Chlorotoluene	9.055	126	22328	0.99	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	76170	0.87	ppb		99
63) tert-Butylbenzene	9.353	119	59923	0.88	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	73440	0.87	ppb		98
65) sec-Butylbenzene	9.567	105	89955	0.89	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	34360	0.92	ppb		100
67) p-Isopropyltoluene	9.713	119	68086	0.82	ppb		97
68) 1,4-Dichlorobenzene	9.756	146	34860	0.89	ppb		94
69) 1,2-Dichlorobenzene	10.115	146	24567	0.87	ppb		100
70) n-Butylbenzene	10.109	91	63817	0.81	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.883	157	932	0.72	ppb	#	64
72) 1,2,4-Trichlorobenzene	11.706	180	6168	0.46	ppb		90
73) Hexachlorobutadiene	11.883	225	6218	0.47	ppb		97
74) Naphthalene	11.944	128	7514	0.99	ppb	#	94
75) 1,2,3-Trichlorobenzene	12.188	180	3448	0.52	ppb		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328004.d
Acq On : 28 Mar 2014 8:49 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 28 09:02:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	479547	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	741239	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	592815	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	240183	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	223417	10.37	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.70%				
36) Toluene-d8	6.220	98	874445	10.03	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.30%				
54) 4-Bromofluorobenzene	8.622	95	264503	9.74	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	71435	1.89	ppb		100
3) Chloromethane	1.343	50	111552	1.95	ppb		100
4) Vinyl Chloride	1.428	62	94040	2.00	ppb		99
5) Bromomethane	1.690	96	44871	2.05	ppb		99
6) Chloroethane	1.769	64	48789	1.97	ppb		96
7) Trichlorofluoromethane	1.977	101	101236	1.97	ppb		99
8) 1,1-Dichloroethene	2.416	61	107339	1.98	ppb		100
9) Acetone	2.470	43	9060	2.24	ppb		96
10) Iodomethane	2.538	142	60687	2.01	ppb		99
11) Carbon Disulfide	2.592	76	171279	2.00	ppb		97
12) Methylene Chloride	2.824	49	93388	1.98	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	110387	2.06	ppb		100
14) Methyl t-Butyl Ether	3.068	73	70253	2.02	ppb		98
15) 1,1-Dichloroethane	3.409	63	125922	2.02	ppb		98
16) Vinyl Acetate	3.458	43	54537	1.97	ppb		98
17) 2,2-Dichloropropane	3.891	77	80592	1.97	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	114722	1.99	ppb		99
19) 2-Butanone	3.921	43	12367	2.16	ppb		91
20) Bromochloromethane	4.098	130	24764	2.04	ppb		97
21) Chloroform	4.165	83	98372	2.01	ppb		98
22) 1,1,1-Trichloroethane	4.318	97	93941	1.95	ppb	#	1
24) Carbon Tetrachloride	4.458	117	88301	1.97	ppb		100
25) 1,1-Dichloropropene	4.452	75	82043	1.99	ppb		100
26) Benzene	4.629	78	213449	1.99	ppb		100
27) 1,2-Dichloroethane	4.641	62	61512	2.06	ppb		99
29) Trichloroethene	5.171	130	64112	2.02	ppb		93
30) 1,2-Dichloropropane	5.360	63	59895	2.01	ppb		100
31) Dibromomethane	5.464	174	20052	2.08	ppb		99
32) Bromodichloromethane	5.598	83	59547	2.02	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	3284	6.24	ppb		100
34) (cis) 1,3-Dichloropropene	5.982	75	59196	1.90	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	22165	2.05	ppb		98
37) Toluene	6.275	91	232630	1.92	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	40523	1.94	ppb		100
40) 1,1,2-Trichloroethane	6.634	97	23818	1.92	ppb		94
41) Tetrachloroethene	6.768	166	63251	1.94	ppb		98
42) 1,3-Dichloropropane	6.787	76	43185	1.98	ppb		99
43) 2-Hexanone	6.866	43	13779	1.89	ppb		99
44) Dibromochloromethane	6.988	129	31574	1.95	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

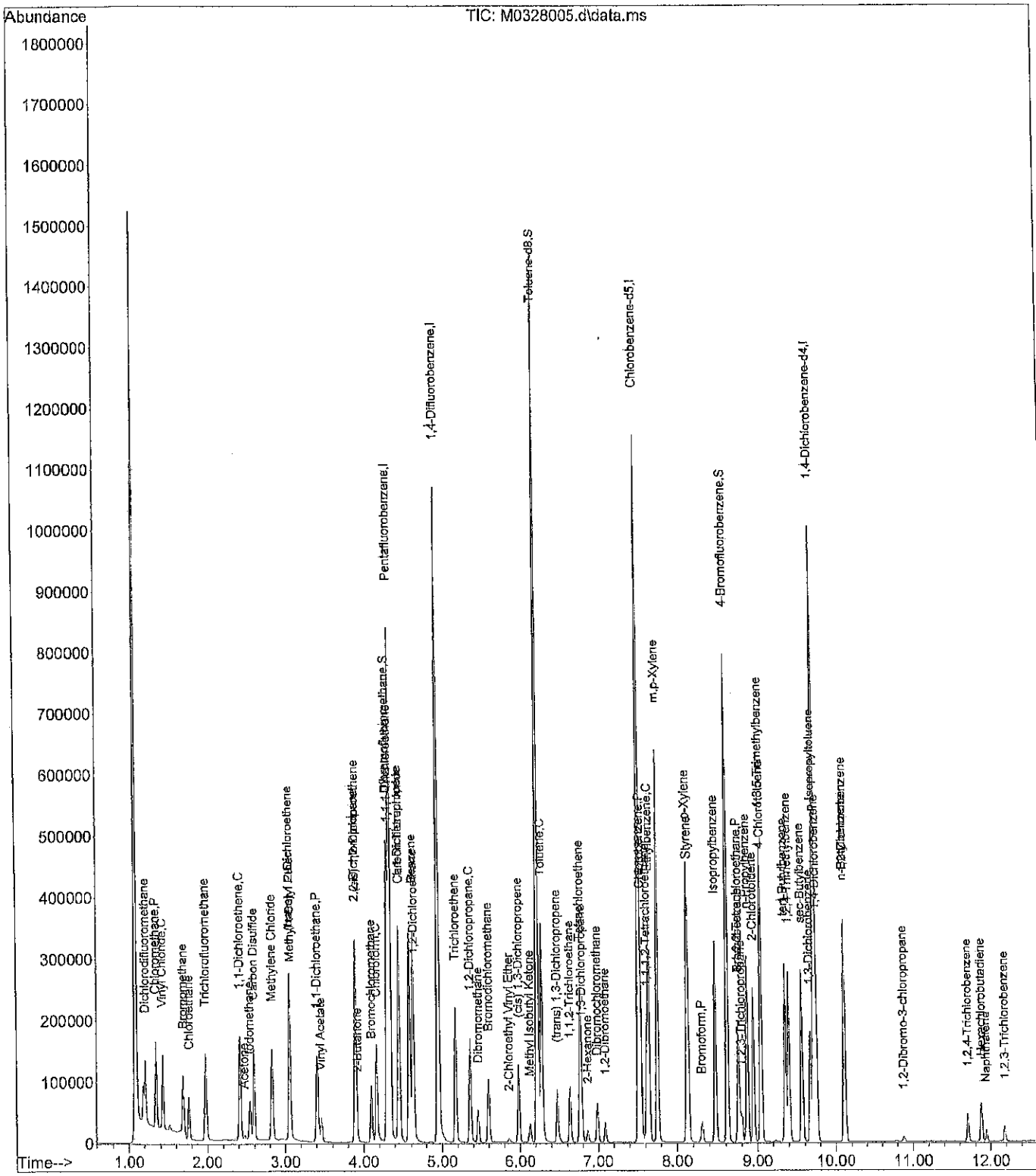
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	22108	2.07	ppb		94
46) Chlorobenzene	7.543	112	126905	1.93	ppb		98
47) 1,1,1,2-Tetrachloroethane	7.616	133	40634	1.89	ppb		97
48) Ethylbenzene	7.646	91	244080	1.84	ppb		99
49) m,p-Xylene	7.756	91	366249	3.67	ppb		100
50) o-Xylene	8.128	91	168553	1.82	ppb		99
51) Styrene	8.140	104	125222	1.84	ppb		100
52) Bromoform	8.311	173	15623	1.86	ppb		98
53) Isopropylbenzene	8.475	105	207918	1.79	ppb		99
56) Bromobenzene	8.762	156	41070	2.02	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	20399	2.05	ppb		97
58) 1,2,3-Trichloropropane	8.799	75	17704	2.32	ppb	#	100
59) n-Propylbenzene	8.872	91	236825	1.94	ppb		99
60) 2-Chlorotoluene	8.951	126	46452	1.98	ppb		97
61) 4-Chlorotoluene	9.055	126	46002	1.98	ppb		95
62) 1,3,5-Trimethylbenzene	9.042	105	172160	1.90	ppb		100
63) tert-Butylbenzene	9.353	119	133577	1.88	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	156865	1.80	ppb		98
65) sec-Butylbenzene	9.567	105	191336	1.83	ppb		100
66) 1,3-Dichlorobenzene	9.670	146	73967	1.92	ppb		96
67) p-Isopropyltoluene	9.713	119	152932	1.78	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	76190	1.87	ppb		96
69) 1,2-Dichlorobenzene	10.115	146	52952	1.80	ppb		99
70) n-Butylbenzene	10.109	91	135827	1.67	ppb		98
71) 1,2-Dibromo-3-chloropr...	10.883	157	2368	1.76	ppb		98
72) 1,2,4-Trichlorobenzene	11.706	180	14738	1.05	ppb		94
73) Hexachlorobutadiene	11.883	225	13288	0.97	ppb		99
74) Naphthalene	11.944	128	16224	1.48	ppb		97
75) 1,2,3-Trichlorobenzene	12.188	180	8510	1.04	ppb		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328005.d
Acq On : 28 Mar 2014 9:12 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 28 09:25:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	487403	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	747722	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	596122	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	250793	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	226293	10.34	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.40%				
36) Toluene-d8	6.220	98	883353	10.04	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.40%				
54) 4-Bromofluorobenzene	8.616	95	269266	9.86	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	175706	4.58	ppb		100
3) Chloromethane	1.343	50	272665	4.68	ppb		99
4) Vinyl Chloride	1.428	62	233677	4.89	ppb		100
5) Bromomethane	1.684	96	107522	4.84	ppb		99
6) Chloroethane	1.770	64	119788	4.76	ppb		100
7) Trichlorofluoromethane	1.977	101	251859	4.81	ppb		99
8) 1,1-Dichloroethene	2.416	61	271961	4.94	ppb		98
9) Acetone	2.471	43	19243	5.36	ppb		100
10) Iodomethane	2.538	142	171354	4.82	ppb		99
11) Carbon Disulfide	2.593	76	428232	4.92	ppb		100
12) Methylene Chloride	2.824	49	227594	4.76	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	265907	4.87	ppb		98
14) Methyl t-Butyl Ether	3.068	73	176485	4.99	ppb		98
15) 1,1-Dichloroethane	3.409	63	313941	4.94	ppb		98
16) Vinyl Acetate	3.458	43	132036	4.05	ppb		100
17) 2,2-Dichloropropane	3.891	77	198435	4.78	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	289717	4.95	ppb		100
19) 2-Butanone	3.922	43	29280	5.04	ppb		95
20) Bromochloromethane	4.098	130	61061	4.94	ppb		97
21) Chloroform	4.165	83	248538	5.00	ppb		100
22) 1,1,1-Trichloroethane	4.318	97	236699	4.83	ppb	#	48
24) Carbon Tetrachloride	4.458	117	217779	4.78	ppb		99
25) 1,1-Dichloropropene	4.452	75	201088	4.81	ppb		99
26) Benzene	4.629	78	539722	4.94	ppb		100
27) 1,2-Dichloroethane	4.641	62	152728	5.02	ppb		100
29) Trichloroethene	5.171	130	158883	4.97	ppb		97
30) 1,2-Dichloropropane	5.360	63	149194	4.96	ppb		98
31) Dibromomethane	5.464	174	48876	5.02	ppb		96
32) Bromodichloromethane	5.598	83	146557	4.93	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	7478	11.60	ppb	#	90
34) (cis) 1,3-Dichloropropene	5.982	75	153320	4.87	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	53853	4.94	ppb		96
37) Toluene	6.275	91	581598	4.77	ppb		98
39) (trans) 1,3-Dichloropr...	6.470	75	101688	4.84	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	59584	4.77	ppb		96
41) Tetrachloroethene	6.769	166	153550	4.68	ppb		99
42) 1,3-Dichloropropane	6.787	76	109881	5.00	ppb		100
43) 2-Hexanone	6.866	43	36571	4.99	ppb	#	97
44) Dibromochloromethane	6.988	129	80368	4.94	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

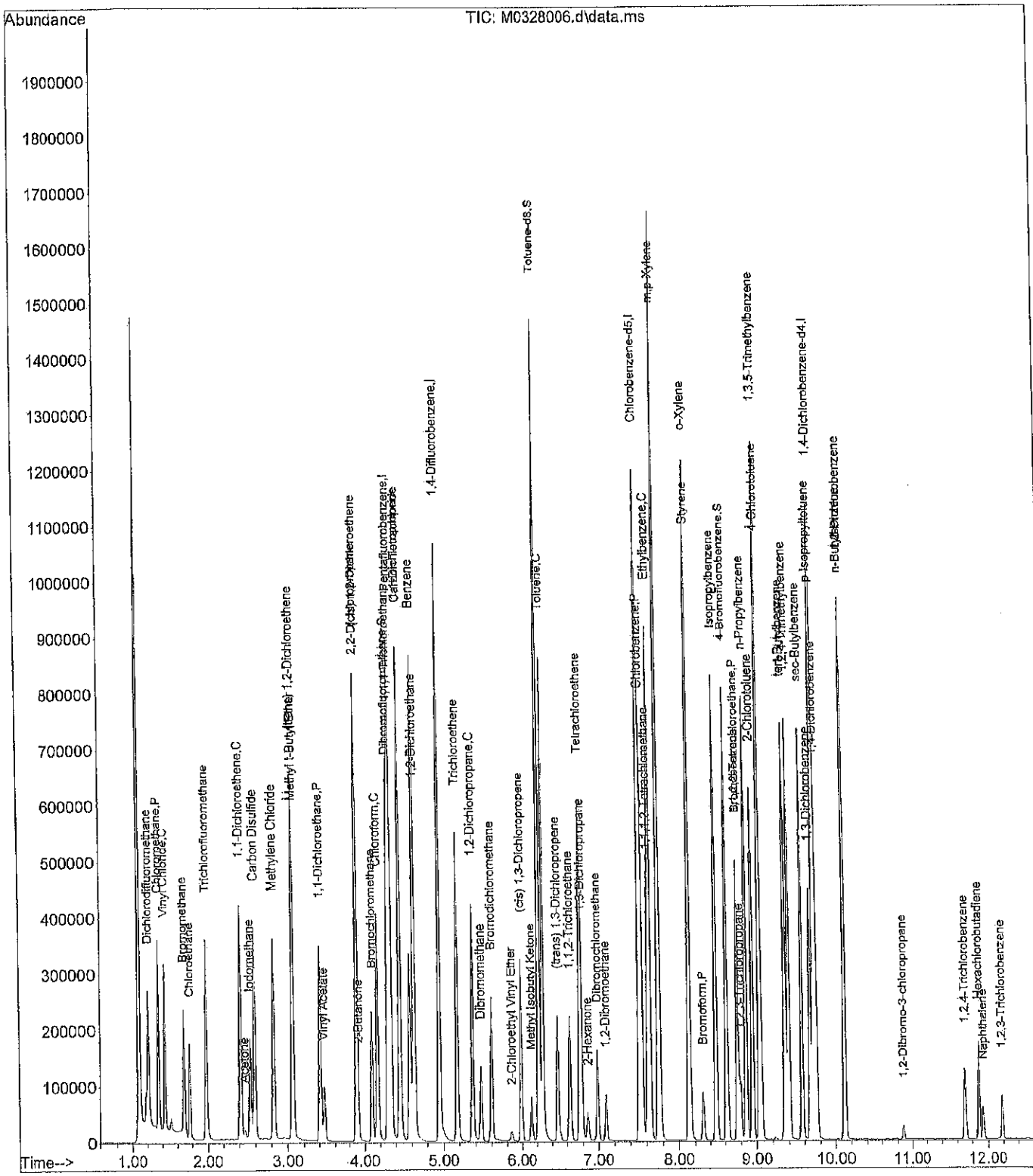
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	55408	5.15	ppb		94
46) Chlorobenzene	7.543	112	312120	4.72	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	105314	4.86	ppb		100
48) Ethylbenzene	7.646	91	615237	4.61	ppb		100
49) m,p-Xylene	7.756	91	948174	9.45	ppb		100
50) o-Xylene	8.128	91	431278	4.64	ppb		99
51) Styrene	8.140	104	328797	4.81	ppb		100
52) Bromoform	8.311	173	41308	4.89	ppb		97
53) Isopropylbenzene	8.476	105	537723	4.60	ppb		100
56) Bromobenzene	8.762	156	106237	5.00	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	53508	5.15	ppb		95
58) 1,2,3-Trichloropropane	8.799	75	42362	5.32	ppb	#	100
59) n-Propylbenzene	8.872	91	619715	4.86	ppb		99
60) 2-Chlorotoluene	8.951	126	118651	4.84	ppb		99
61) 4-Chlorotoluene	9.055	126	119653	4.92	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	448413	4.74	ppb		99
63) tert-Butylbenzene	9.353	119	348521	4.70	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	423815	4.65	ppb		100
65) sec-Butylbenzene	9.567	105	506584	4.64	ppb		100
66) 1,3-Dichlorobenzene	9.670	146	186299	4.62	ppb		98
67) p-Isopropyltoluene	9.713	119	398736	4.45	ppb		98
68) 1,4-Dichlorobenzene	9.756	146	196227	4.62	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	139284	4.54	ppb		98
70) n-Butylbenzene	10.109	91	366974	4.31	ppb		100
71) 1,2-Dibromo-3-chloropr...	10.884	157	6040	4.30	ppb		92
72) 1,2,4-Trichlorobenzene	11.707	180	40513	2.76	ppb		97
73) Hexachlorobutadiene	11.883	225	36435	2.56	ppb		98
74) Naphthalene	11.944	128	46161	3.10	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	25509	2.71	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328006.d
Acq On : 28 Mar 2014 9:36 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 28 09:48:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	489227	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	759757	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	599575	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246718	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	222542	10.13	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 101.30%				
36) Toluene-d8	6.220	98	893363	10.00	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.00%				
54) 4-Bromofluorobenzene	8.616	95	271986	9.90	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	358326	9.31	ppb		100
3) Chloromethane	1.343	50	555937	9.51	ppb		99
4) Vinyl Chloride	1.428	62	483276	10.07	ppb		100
5) Bromomethane	1.690	96	219911	9.85	ppb		100
6) Chloroethane	1.770	64	247386	9.79	ppb		100
7) Trichlorofluoromethane	1.977	101	523334	9.97	ppb		100
8) 1,1-Dichloroethene	2.416	61	557386	10.08	ppb		99
9) Acetone	2.471	43	34774	10.16	ppb		99
10) Iodomethane	2.538	142	368612	9.85	ppb		99
11) Carbon Disulfide	2.593	76	884927	10.14	ppb		99
12) Methylene Chloride	2.824	49	460832	9.60	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	560950	10.24	ppb		100
14) Methyl t-Butyl Ether	3.068	73	348111	9.80	ppb		99
15) 1,1-Dichloroethane	3.410	63	642292	10.08	ppb		100
16) Vinyl Acetate	3.458	43	253649	7.34	ppb		99
17) 2,2-Dichloropropane	3.897	77	412258	9.89	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	592869	10.09	ppb		99
19) 2-Butanone	3.922	43	56987	9.78	ppb		98
20) Bromochloromethane	4.098	130	125464	10.11	ppb		99
21) Chloroform	4.165	83	500093	10.03	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	488995	9.94	ppb		98
24) Carbon Tetrachloride	4.458	117	448921	9.82	ppb		98
25) 1,1-Dichloropropene	4.452	75	415631	9.89	ppb		99
26) Benzene	4.629	78	1106258	10.09	ppb		99
27) 1,2-Dichloroethane	4.641	62	310436	10.17	ppb		100
29) Trichloroethene	5.171	130	328989	10.12	ppb		99
30) 1,2-Dichloropropane	5.360	63	301712	9.86	ppb		99
31) Dibromomethane	5.464	174	97928	9.89	ppb		99
32) Bromodichloromethane	5.598	83	300904	9.96	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	14914	20.86	ppb	#	88
34) (cis) 1,3-Dichloropropene	5.982	75	316852	9.91	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	105947	9.57	ppb		99
37) Toluene	6.275	91	1190855	9.61	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	217027	10.28	ppb		98
40) 1,1,2-Trichloroethane	6.635	97	120206	9.58	ppb		97
41) Tetrachloroethene	6.769	166	321992	9.76	ppb		99
42) 1,3-Dichloropropane	6.787	76	222149	10.05	ppb		99
43) 2-Hexanone	6.866	43	70181	9.53	ppb		98
44) Dibromochloromethane	6.988	129	163728	10.00	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

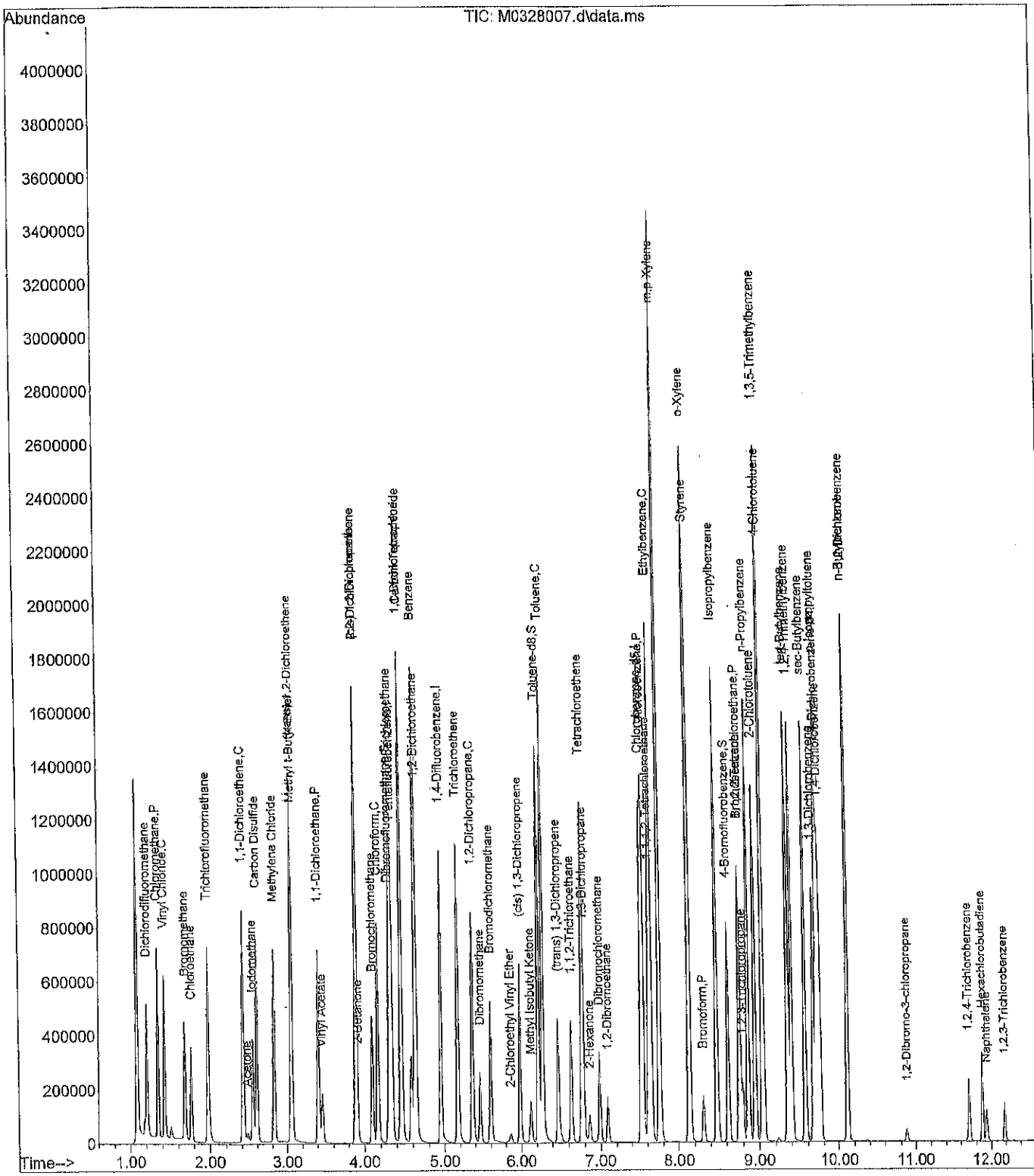
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	109725	10.14	ppb		97
46) Chlorobenzene	7.543	112	647533	9.74	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	217287	9.97	ppb		98
48) Ethylbenzene	7.646	91	1313400	9.79	ppb		100
49) m,p-Xylene	7.756	91	1993585	19.75	ppb		99
50) o-Xylene	8.128	91	903632	9.66	ppb		98
51) Styrene	8.140	104	688761	10.02	ppb		100
52) Bromoform	8.311	173	83704	9.85	ppb		97
53) Isopropylbenzene	8.476	105	1147125	9.75	ppb		100
56) Bromobenzene	8.762	156	215852	10.33	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	102118	9.98	ppb		99
58) 1,2,3-Trichloropropane	8.799	75	82731	10.56	ppb	#	100
59) n-Propylbenzene	8.872	91	1318888	10.52	ppb		99
60) 2-Chlorotoluene	8.951	126	252805	10.48	ppb		98
61) 4-Chlorotoluene	9.055	126	249463	10.43	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	956130	10.27	ppb		99
63) tert-Butylbenzene	9.353	119	765683	10.50	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	885124	9.88	ppb		99
65) sec-Butylbenzene	9.567	105	1090861	10.15	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	380986	9.60	ppb		99
67) p-Isopropyltoluene	9.713	119	856914	9.72	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	396253	9.49	ppb		99
69) 1,2-Dichlorobenzene	10.116	146	278161	9.21	ppb		99
70) n-Butylbenzene	10.109	91	770172	9.19	ppb		100
71) 1,2-Dibromo-3-chloropr...	10.884	157	12386	8.97	ppb		87
72) 1,2,4-Trichlorobenzene	11.701	180	77070	5.34	ppb		99
73) Hexachlorobutadiene	11.883	225	69390	4.95	ppb		98
74) Naphthalene	11.944	128	90183	5.61	ppb		98
75) 1,2,3-Trichlorobenzene	12.182	180	49016	5.15	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328007.d
Acq On : 28 Mar 2014 9:59 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 28 10:12:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	497601	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	768052	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	607515	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	252975	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	229055	10.25	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.50%				
36) Toluene-d8	6.220	98	909694	10.07	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.70%				
54) 4-Bromofluorobenzene	8.622	95	277129	9.95	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.50%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	1121507	28.64	ppb		99
3) Chloromethane	1.343	50	1561206	26.25	ppb		100
4) Vinyl Chloride	1.428	62	1328160	27.20	ppb		100
5) Bromomethane	1.684	96	581881	25.64	ppb		99
6) Chloroethane	1.770	64	655545	25.52	ppb		99
7) Trichlorofluoromethane	1.977	101	1389716	26.02	ppb		99
8) 1,1-Dichloroethene	2.416	61	1474120	26.22	ppb		99
9) Acetone	2.471	43	87736	26.13	ppb		98
10) Iodomethane	2.538	142	1029759	26.31	ppb		98
11) Carbon Disulfide	2.593	76	2384649	26.86	ppb		99
12) Methylene Chloride	2.824	49	1201171	24.59	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	1480100	26.56	ppb		99
14) Methyl t-Butyl Ether	3.068	73	917317	25.39	ppb		99
15) 1,1-Dichloroethane	3.410	63	1697554	26.18	ppb		99
16) Vinyl Acetate	3.458	43	677905	18.53	ppb		99
17) 2,2-Dichloropropane	3.897	77	1075056	25.36	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	1593641	26.66	ppb		100
19) 2-Butanone	3.922	43	148430	25.04	ppb		98
20) Bromochloromethane	4.098	130	328851	26.05	ppb		99
21) Chloroform	4.165	83	1322341	26.07	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	1293343	25.86	ppb	#	68
24) Carbon Tetrachloride	4.458	117	1213430	26.09	ppb		100
25) 1,1-Dichloropropene	4.452	75	1117703	26.16	ppb		100
26) Benzene	4.629	78	2935857	26.34	ppb		99
27) 1,2-Dichloroethane	4.641	62	810173	26.11	ppb		99
29) Trichloroethene	5.171	130	884095	26.91	ppb		97
30) 1,2-Dichloropropane	5.360	63	807229	26.10	ppb		99
31) Dibromomethane	5.464	174	260025	25.99	ppb		98
32) Bromodichloromethane	5.598	83	801089	26.22	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	43191	56.05	ppb	#	86
34) (cis) 1,3-Dichloropropene	5.982	75	878404	27.19	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	291919	26.08	ppb		98
37) Toluene	6.281	91	3203081	25.57	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	580541	27.13	ppb		98
40) 1,1,2-Trichloroethane	6.634	97	324195	25.49	ppb		96
41) Tetrachloroethene	6.769	166	854911	25.57	ppb		100
42) 1,3-Dichloropropane	6.787	76	586797	26.20	ppb		100
43) 2-Hexanone	6.866	43	200018	26.80	ppb		100
44) Dibromochloromethane	6.988	129	444656	26.79	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

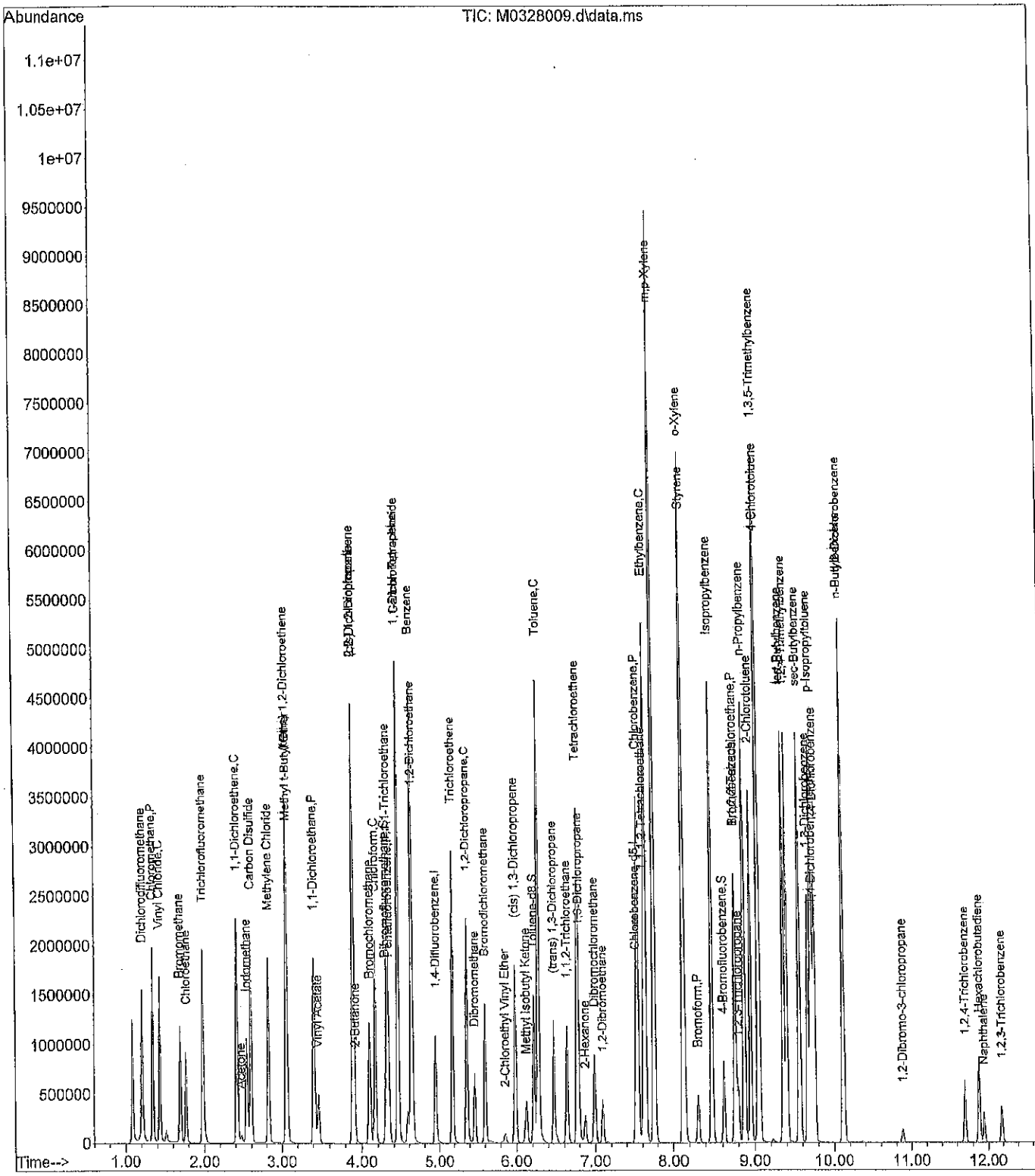
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	292386	26.66	ppb		99
46) Chlorobenzene	7.543	112	1729622	25.68	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	576009	26.08	ppb		99
48) Ethylbenzene	7.646	91	3585151	26.38	ppb		99
49) m,p-Xylene	7.756	91	5434085	53.13	ppb		99
50) o-Xylene	8.128	91	2466541	26.02	ppb		99
51) Styrene	8.140	104	1887824	27.11	ppb		100
52) Bromoform	8.311	173	232242	26.97	ppb		99
53) Isopropylbenzene	8.476	105	3134059	26.30	ppb		100
56) Bromobenzene	8.762	156	592396	27.65	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	278507	26.56	ppb		97
58) 1,2,3-Trichloropropane	8.799	75	221012	27.51	ppb	#	100
59) n-Propylbenzene	8.872	91	3571653	27.78	ppb		100
60) 2-Chlorotoluene	8.951	126	685447	27.70	ppb		98
61) 4-Chlorotoluene	9.055	126	667612	27.22	ppb		100
62) 1,3,5-Trimethylbenzene	9.043	105	2605407	27.30	ppb		99
63) tert-Butylbenzene	9.353	119	2039103	27.27	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	2384690	25.96	ppb		100
65) sec-Butylbenzene	9.567	105	2940858	26.70	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	1018598	25.04	ppb		99
67) p-Isopropyltoluene	9.713	119	2342593	25.92	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	1061821	24.81	ppb		99
69) 1,2-Dichlorobenzene	10.116	146	755745	24.41	ppb		100
70) n-Butylbenzene	10.109	91	2095716	24.39	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	35703	25.21	ppb		95
72) 1,2,4-Trichlorobenzene	11.707	180	210257	14.22	ppb		98
73) Hexachlorobutadiene	11.883	225	183636	12.77	ppb		99
74) Naphthalene	11.944	128	250957	14.31	ppb		100
75) 1,2,3-Trichlorobenzene	12.182	180	124247	12.52	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328009.d
Acq On : 28 Mar 2014 10:46 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 28 10:59:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	522687	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	794397	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	648063	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	271326	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	239856	10.22	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.20%				
36) Toluene-d8	6.220	98	954439	10.21	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 102.10%				
54) 4-Bromofluorobenzene	8.622	95	292946	9.86	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	2263976	55.05	ppb		99
3) Chloromethane	1.343	50	3189613	51.05	ppb		100
4) Vinyl Chloride	1.428	62	2726670	53.16	ppb		99
5) Bromomethane	1.690	96	1188547	49.85	ppb		99
6) Chloroethane	1.769	64	1341140	49.70	ppb		99
7) Trichlorofluoromethane	1.977	101	2822826	50.31	ppb		100
8) 1,1-Dichloroethene	2.416	61	3002296	50.83	ppb		98
9) Acetone	2.477	43	169002	48.45	ppb		98
10) Iodomethane	2.538	142	2055765	49.63	ppb		97
11) Carbon Disulfide	2.592	76	4931028	52.87	ppb		100
12) Methylene Chloride	2.824	49	2461328	47.97	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	3034587	51.85	ppb		99
14) Methyl t-Butyl Ether	3.068	73	1954424	51.50	ppb		99
15) 1,1-Dichloroethane	3.409	63	3499793	51.39	ppb		99
16) Vinyl Acetate	3.464	43	1988880	50.94	ppb		99
17) 2,2-Dichloropropane	3.897	77	2173704	48.82	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	3306469	52.65	ppb		100
19) 2-Butanone	3.921	43	294527	47.30	ppb		98
20) Bromochloromethane	4.098	130	687090	51.81	ppb		98
21) Chloroform	4.165	83	2720414	51.07	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	2654495	50.52	ppb	#	58
24) Carbon Tetrachloride	4.458	117	2489450	50.96	ppb		100
25) 1,1-Dichloropropene	4.458	75	2319305	51.68	ppb		99
26) Benzene	4.629	78	6103832	52.13	ppb		98
27) 1,2-Dichloroethane	4.641	62	1656157	50.81	ppb		99
29) Trichloroethene	5.171	130	1726990	50.82	ppb		99
30) 1,2-Dichloropropane	5.360	63	1670462	52.23	ppb		99
31) Dibromomethane	5.464	174	532261	51.43	ppb		98
32) Bromodichloromethane	5.598	83	1679673	53.15	ppb		100
33) 2-Chloroethyl Vinyl Ether	5.860	63	102169	125.64	ppb	#	89
34) (cis) 1,3-Dichloropropene	5.982	75	1826617	54.67	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	644949	55.71	ppb		98
37) Toluene	6.281	91	6709086	51.79	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	1239067	54.28	ppb		98
40) 1,1,2-Trichloroethane	6.634	97	674955	49.75	ppb		97
41) Tetrachloroethene	6.768	166	1764560	49.48	ppb		99
42) 1,3-Dichloropropane	6.787	76	1220959	51.11	ppb		99
43) 2-Hexanone	6.866	43	420528	52.83	ppb		98
44) Dibromochloromethane	6.988	129	950233	53.68	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

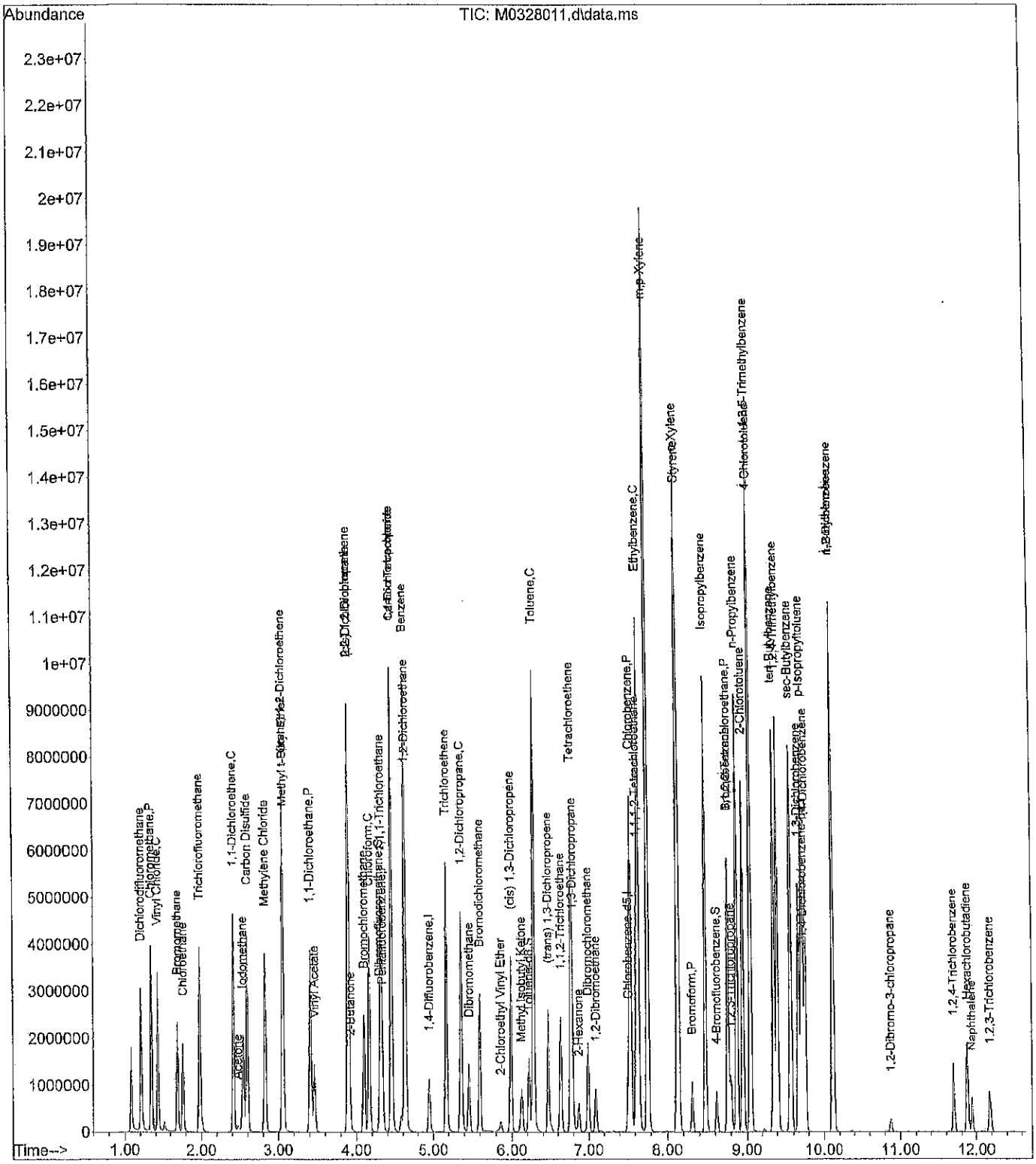
Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	599789	51.27	ppb		100
46) Chlorobenzene	7.543	112	3639368	50.66	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.622	133	1226756	52.08	ppb		99
48) Ethylbenzene	7.646	91	7483755	51.62	ppb		99
49) m,p-Xylene	7.756	91	11469508	105.12	ppb		99
50) o-Xylene	8.128	91	5194099	51.37	ppb		99
51) Styrene	8.140	104	4005725	53.92	ppb		100
52) Bromoform	8.311	173	511778	55.72	ppb		97
53) Isopropylbenzene	8.475	105	6542524	51.46	ppb		100
56) Bromobenzene	8.762	156	1232656	53.64	ppb		100
57) 1,1,2,2-Tetrachloroethane	8.762	83	621739	55.28	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	462707	53.70	ppb	#	100
59) n-Propylbenzene	8.872	91	7452772	54.05	ppb		99
60) 2-Chlorotoluene	8.951	126	1400536	52.77	ppb		98
61) 4-Chlorotoluene	9.055	126	1411549	53.66	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	5458502	53.32	ppb		100
63) tert-Butylbenzene	9.353	119	4243887	52.91	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	5034056	51.09	ppb		100
65) sec-Butylbenzene	9.567	105	6127669	51.87	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	2161176	49.54	ppb		99
67) p-Isopropyltoluene	9.713	119	4907139	50.62	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	2245473	48.92	ppb		98
69) 1,2-Dichlorobenzene	10.115	146	1619215	48.77	ppb		100
70) n-Butylbenzene	10.115	91	4472832	48.54	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.883	157	75602	49.77	ppb		94
72) 1,2,4-Trichlorobenzene	11.700	180	482632	30.43	ppb		99
73) Hexachlorobutadiene	11.883	225	393787	25.53	ppb		98
74) Naphthalene	11.944	128	596197	31.03	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	286773	26.78	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328011.d
Acq On : 28 Mar 2014 11:33 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 11:46:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140324W.M
Quant Title :
QLast Update : Mon Mar 24 11:04:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	510461	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	773794	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	619866	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	260824	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	233640	10.05	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.50%			
36) Toluene-d8	6.220	98	922244	10.11	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 101.10%			
54) 4-Bromofluorobenzene	8.622	95	278743	10.13	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 101.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	329413	8.41	ppb	100
3) Chloromethane	1.343	50	597280	9.87	ppb	100
4) Vinyl Chloride	1.428	62	501584	9.84	ppb	100
5) Bromomethane	1.690	96	230195	9.50	ppb	98
6) Chloroethane	1.769	64	257346	9.62	ppb	99
7) Trichlorofluoromethane	1.977	101	559983	10.20	ppb	99
8) 1,1-Dichloroethene	2.416	61	639672	10.90	ppb	100
9) Acetone	2.483	43	36530	10.23	ppb	99
10) Iodomethane	2.538	142	373007	9.48	ppb	99
11) Carbon Disulfide	2.592	76	935588	10.03	ppb	100
12) Methylene Chloride	2.824	49	504778	10.00	ppb	99
13) (trans) 1,2-Dichloroet...	3.056	61	595161	10.07	ppb	99
14) Methyl t-Butyl Ether	3.068	73	395430	10.62	ppb	100
15) 1,1-Dichloroethane	3.409	63	704461	10.46	ppb	99
16) Vinyl Acetate	3.464	43	172935	6.08	ppb	100
17) 2,2-Dichloropropane	3.897	77	408962	9.51	ppb	100
18) (cis) 1,2-Dichloroethene	3.897	61	638476	10.27	ppb	100
19) 2-Butanone	3.921	43	58497	9.47	ppb	98
20) Bromochloromethane	4.098	130	139022	10.67	ppb	98
21) Chloroform	4.165	83	549665	10.33	ppb	99
22) 1,1,1-Trichloroethane	4.318	97	536813	10.46	ppb	95
24) Carbon Tetrachloride	4.458	117	499537	10.42	ppb	97
25) 1,1-Dichloropropene	4.452	75	448750	10.09	ppb	99
26) Benzene	4.629	78	1210361	10.35	ppb	100
27) 1,2-Dichloroethane	4.641	62	336423	10.39	ppb	99
29) Trichloroethene	5.171	130	378291	11.08	ppb	99
30) 1,2-Dichloropropane	5.360	63	326363	10.48	ppb	99
31) Dibromomethane	5.464	174	111837	11.18	ppb	99
32) Bromodichloromethane	5.598	83	338886	10.94	ppb	98
33) 2-Chloroethyl Vinyl Ether	5.860	63	15917	9.55	ppb	99
34) (cis) 1,3-Dichloropropene	5.982	75	343393	10.79	ppb	99
35) Methyl Isobutyl Ketone	6.122	43	110853	9.73	ppb	98
37) Toluene	6.281	91	1303383	10.35	ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	231090	10.59	ppb	100
40) 1,1,2-Trichloroethane	6.634	97	131800	10.05	ppb	99
41) Tetrachloroethene	6.769	166	351520	10.39	ppb	99
42) 1,3-Dichloropropane	6.787	76	240647	10.55	ppb	99
43) 2-Hexanone	6.866	43	73055	9.33	ppb	100
44) Dibromochloromethane	6.988	129	187880	11.08	ppb	98

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration

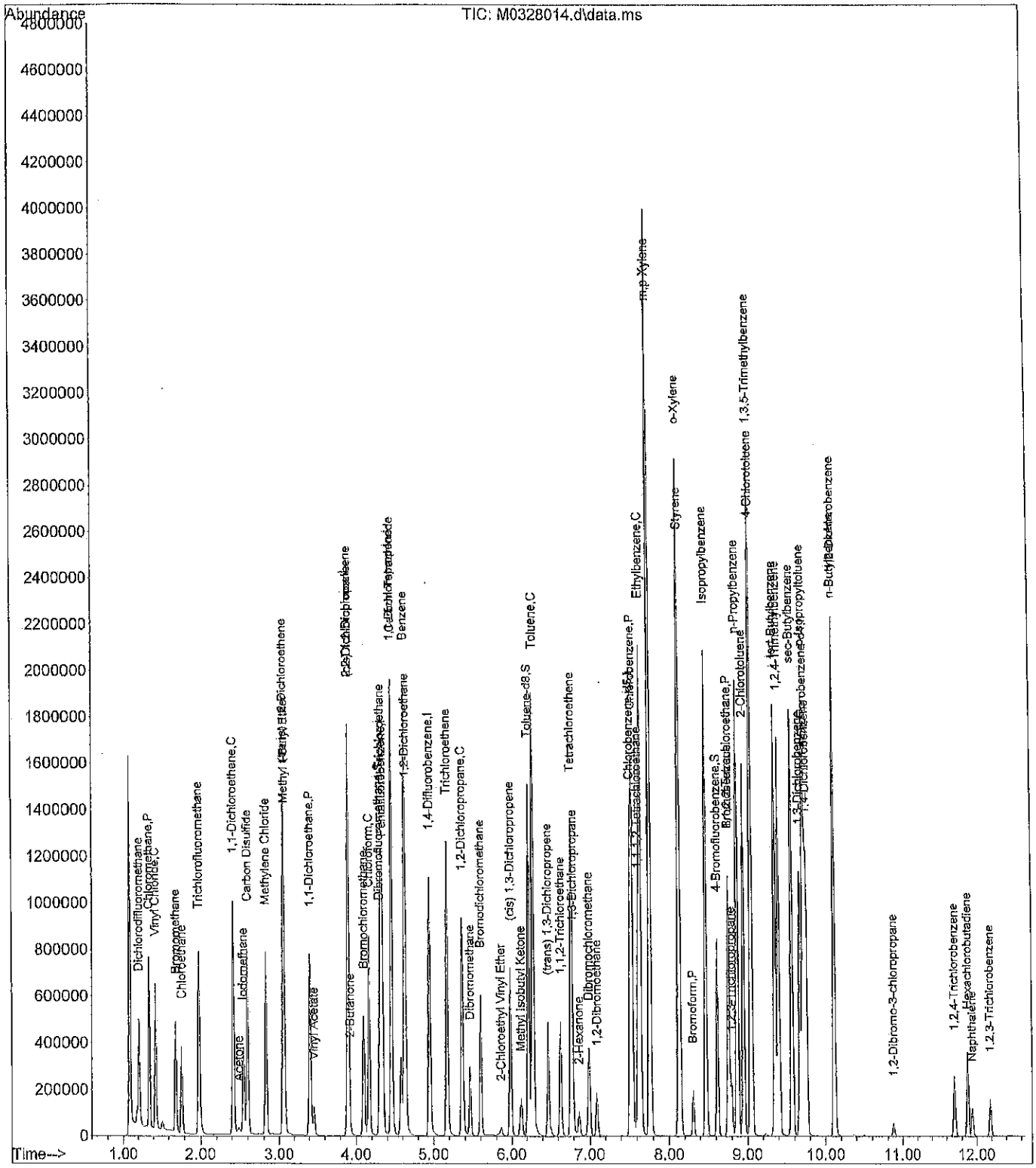
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	121746	10.62	ppb		99
46) Chlorobenzene	7.543	112	777358	11.26	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	235590	10.59	ppb		99
48) Ethylbenzene	7.646	91	1429843	10.55	ppb		100
49) m,p-Xylene	7.756	91	2249857	22.19	ppb		99
50) o-Xylene	8.128	91	1087120	11.73	ppb		100
51) Styrene	8.140	104	755347	10.94	ppb		100
52) Bromoform	8.311	173	92427	10.74	ppb		98
53) Isopropylbenzene	8.475	105	1357068	11.74	ppb		99
56) Bromobenzene	8.762	156	244612	10.36	ppb		97
57) 1,1,2,2-Tetrachloroethane	8.762	83	109511	9.58	ppb		96
58) 1,2,3-Trichloropropane	8.799	75	94450	10.47	ppb	#	100
59) n-Propylbenzene	8.872	91	1568963	11.28	ppb		99
60) 2-Chlorotoluene	8.951	126	303671	11.33	ppb		100
61) 4-Chlorotoluene	9.055	126	300275	11.41	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	1039946	10.55	ppb		99
63) tert-Butylbenzene	9.353	119	902330	11.62	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	957567	10.48	ppb		99
65) sec-Butylbenzene	9.567	105	1290528	11.52	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	459444	11.27	ppb		99
67) p-Isopropyltoluene	9.713	119	1006766	11.42	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	433737	10.18	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	343625	11.62	ppb		98
70) n-Butylbenzene	10.109	91	840590	10.44	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	14660	11.24	ppb		97
72) 1,2,4-Trichlorobenzene	11.707	180	86555	10.60	ppb		98
73) Hexachlorobutadiene	11.883	225	75185	9.84	ppb		98
74) Naphthalene	11.944	128	98546	10.16	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	52321	9.87	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140328\
Data File : M0328014.d
Acq On : 28 Mar 2014 12:43 pm
Operator :
Sample : ICV0328W1
Misc : V3-124-3
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 13:11:22 2014
Quant Method : C:\msdchem\1\methods\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:43:46 2014
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424007.d
Acq On : 24 Apr 2014 10:17 am
Operator :
Sample : CCV0424W3
Misc : V3-125-14
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 24 10:30:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	10.000	10.000	0.0	114	0.00
2		Dichlorodifluoromethane	10.000	7.702	23.0#	92	0.00
3	P	Chloromethane	10.000	8.048	19.5	95	0.00
4	C	Vinyl Chloride	10.000	8.650	13.5#	99	0.00
5		Bromomethane	10.000	8.703	13.0	104	0.00
6		Chloroethane	10.000	8.379	16.2	99	0.00
7		Trichlorofluoromethane	10.000	9.007	9.9	103	0.00
8	C	1,1-Dichloroethene	10.000	9.205	7.9#	105	0.00
9		Acetone	10.000	8.678	13.2	98	0.01
10		Iodomethane	10.000	9.532	4.7	111	0.00
11		Carbon Disulfide	10.000	9.644	3.6	111	0.00
12		Methylene Chloride	10.000	8.993	10.1	107	0.00
13		(trans) 1,2-Dichloroethene	10.000	9.179	8.2	105	0.00
14		Methyl t-Butyl Ether	10.000	8.736	12.6	102	0.00
15	P	1,1-Dichloroethane	10.000	9.023	9.8	103	0.00
16		Vinyl Acetate	10.000	11.171	-11.7	136	0.00
17		2,2-Dichloropropane	10.000	8.785	12.1	100	0.00
18		(cis) 1,2-Dichloroethene	10.000	8.922	10.8	102	0.00
19		2-Butanone	10.000	8.855	11.4	104	0.00
20		Bromochloromethane	10.000	9.693	3.1	110	0.00
21	C	Chloroform	10.000	8.660	13.4#	100	0.00
22		1,1,1-Trichloroethane	10.000	8.520	14.8	97	0.00
23	S	Dibromofluoromethane	10.000	7.996	20.0#	91	0.00
24		Carbon Tetrachloride	10.000	8.745	12.6	102	0.00
25		1,1-Dichloropropene	10.000	8.692	13.1	101	0.00
26		Benzene	10.000	9.053	9.5	104	0.00
27		1,2-Dichloroethane	10.000	8.296	17.0	94	0.00
28	I	1,4-Difluorobenzene	10.000	10.000	0.0	105	0.00
29		Trichloroethene	10.000	10.084	-0.8	108	0.00
30	C	1,2-Dichloropropane	10.000	9.888	1.1#	106	0.00
31		Dibromomethane	10.000	10.668	-6.7	113	0.00
32		Bromodichloromethane	10.000	9.494	5.1	101	0.00
33		2-Chloroethyl Vinyl Ether	10.000	1.768	82.3#	20	0.00
34		(cis) 1,3-Dichloropropene	10.000	9.688	3.1	101	0.00
35		Methyl Isobutyl Ketone	10.000	9.263	7.4	103	0.00
36	S	Toluene-d8	10.000	9.592	4.1	101	0.00
37	C	Toluene	10.000	9.637	3.6#	105	0.00
38	I	Chlorobenzene-d5	10.000	10.000	0.0	103	0.00
39		(trans) 1,3-Dichloropropene	10.000	9.841	1.6	98	0.00
40		1,1,2-Trichloroethane	10.000	9.924	0.8	108	0.00
41		Tetrachloroethene	10.000	10.789	-7.9	112	0.00
42		1,3-Dichloropropane	10.000	10.029	-0.3	102	0.00
43		2-Hexanone	10.000	9.068	9.3	100	0.00
44		Dibromochloromethane	10.000	10.402	-4.0	107	0.00
45		1,2-Dibromoethane	10.000	10.433	-4.3	108	0.00
46	P	Chlorobenzene	10.000	10.244	-2.4	108	0.00
47		1,1,1,2-Tetrachloroethane	10.000	10.368	-3.7	105	0.00
48	C	Ethylbenzene	10.000	10.218	-2.2#	105	0.00

Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424007.d
Acq On : 24 Apr 2014 10:17 am
Operator :
Sample : CCV0424W3
Misc : V3-125-14
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 24 10:30:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49		m,p-Xylene	20.000	20.345	-1.7	103	0.00
50		o-Xylene	10.000	10.247	-2.5	104	0.00
51		Styrene	10.000	10.675	-6.8	106	0.00
52	P	Bromoform	10.000	10.805	-8.0	110	0.00
53		Isopropylbenzene	10.000	10.449	-4.5	105	0.00
54	S	4-Bromofluorobenzene	10.000	9.868	1.3	99	0.00
55	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	106	0.00
56		Bromobenzene	10.000	10.346	-3.5	113	0.00
57	P	1,1,2,2-Tetrachloroethane	10.000	9.662	3.4	108	0.00
58		1,2,3-Trichloropropane	10.000	9.169	8.3	100	0.00
59		n-Propylbenzene	10.000	9.786	2.1	103	0.00
60		2-Chlorotoluene	10.000	10.359	-3.6	110	0.00
61		4-Chlorotoluene	10.000	10.290	-2.9	109	0.00
62		1,3,5-Trimethylbenzene	10.000	10.441	-4.4	108	0.00
63		tert-Butylbenzene	10.000	10.321	-3.2	105	0.00
64		1,2,4-Trimethylbenzene	10.000	10.533	-5.3	109	0.00
65		sec-Butylbenzene	10.000	10.362	-3.6	106	0.00
66		1,3-Dichlorobenzene	10.000	10.745	-7.4	115	0.00
67		p-Isopropyltoluene	10.000	10.714	-7.1	110	0.00
68		1,4-Dichlorobenzene	10.000	10.650	-6.5	115	0.00
69		1,2-Dichlorobenzene	10.000	10.895	-8.9	116	0.00
70		n-Butylbenzene	10.000	10.344	-3.4	108	0.00
71		1,2-Dibromo-3-chloropropane	10.000	11.557	-15.6	122	0.00
72		1,2,4-Trichlorobenzene	10.000	12.480	-24.8#	132	0.00
73		Hexachlorobutadiene	10.000	13.849	-38.5#	153	0.00
74		Naphthalene	10.000	10.704	-7.0	115	0.00
75		1,2,3-Trichlorobenzene	10.000	11.069	-10.7	120	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424007.d
Acq On : 24 Apr 2014 10:17 am
Operator :
Sample : CCV0424W3
Misc : V3-125-14
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 24 10:30:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	555321	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	799812	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	615337	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	260827	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	202214	8.00	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.00%				
36) Toluene-d8	6.220	98	904062	9.59	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.90%				
54) 4-Bromofluorobenzene	8.616	95	269558	9.87	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.70%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	328177	7.70	ppb		99
3) Chloromethane	1.343	50	529980	8.05	ppb		99
4) Vinyl Chloride	1.428	62	479846	8.65	ppb		100
5) Bromomethane	1.690	96	229407	8.70	ppb		99
6) Chloroethane	1.769	64	243745	8.38	ppb		99
7) Trichlorofluoromethane	1.977	101	538108	9.01	ppb		99
8) 1,1-Dichloroethene	2.416	61	587650	9.20	ppb		100
9) Acetone	2.483	43	34058	8.68	ppb		99
10) Iodomethane	2.538	142	408135	9.53	ppb		94
11) Carbon Disulfide	2.592	76	979012	9.64	ppb		100
12) Methylene Chloride	2.824	49	493955	8.99	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	589995	9.18	ppb		100
14) Methyl t-Butyl Ether	3.068	73	353722	8.74	ppb		97
15) 1,1-Dichloroethane	3.409	63	661069	9.02	ppb		100
16) Vinyl Acetate	3.464	43	345929	11.17	ppb		99
17) 2,2-Dichloropropane	3.897	77	410930	8.79	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	603613	8.92	ppb		100
19) 2-Butanone	3.921	43	59523	8.86	ppb		95
20) Bromochloromethane	4.098	130	137410	9.69	ppb		95
21) Chloroform	4.165	83	501371	8.66	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	475603	8.52	ppb		98
24) Carbon Tetrachloride	4.458	117	456077	8.74	ppb		97
25) 1,1-Dichloropropene	4.452	75	420608	8.69	ppb		99
26) Benzene	4.629	78	1151743	9.05	ppb		99
27) 1,2-Dichloroethane	4.641	62	292297	8.30	ppb		100
29) Trichloroethene	5.171	130	355740	10.08	ppb		98
30) 1,2-Dichloropropane	5.360	63	318329	9.89	ppb		100
31) Dibromomethane	5.464	174	110289	10.67	ppb		97
32) Bromodichloromethane	5.598	83	303934	9.49	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.866	63	3044	1.77	ppb	#	58
34) (cis) 1,3-Dichloropropene	5.982	75	318747	9.69	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	109071	9.26	ppb		97
37) Toluene	6.281	91	1254439	9.64	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	213180	9.84	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	129260	9.92	ppb		100
41) Tetrachloroethene	6.768	166	362183	10.79	ppb		99
42) 1,3-Dichloropropane	6.787	76	227011	10.03	ppb		100
43) 2-Hexanone	6.866	43	70468	9.07	ppb		99
44) Dibromochloromethane	6.988	129	175014	10.40	ppb		100

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424007.d
Acq On : 24 Apr 2014 10:17 am
Operator :
Sample : CCV0424W3
Misc : V3-125-14
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 24 10:30:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

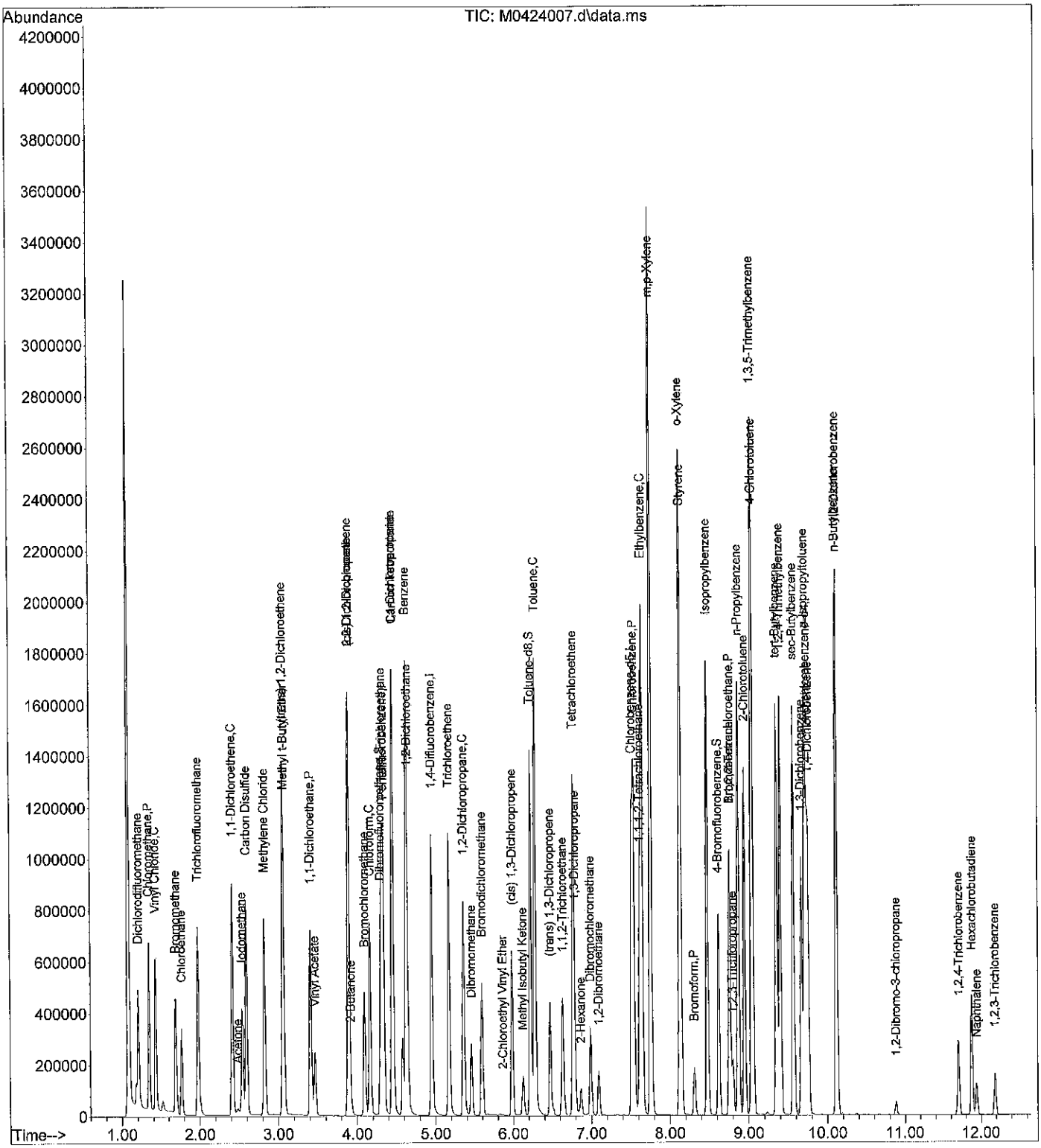
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	118780	10.43	ppb		99
46) Chlorobenzene	7.543	112	701852	10.24	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	228885	10.37	ppb		99
48) Ethylbenzene	7.646	91	1374774	10.22	ppb		98
49) m,p-Xylene	7.756	91	2047967	20.34	ppb		97
50) o-Xylene	8.128	91	942429	10.25	ppb		98
51) Styrene	8.140	104	731927	10.68	ppb		100
52) Bromoform	8.311	173	92315	10.81	ppb		98
53) Isopropylbenzene	8.475	105	1199407	10.45	ppb		99
56) Bromobenzene	8.762	156	244170	10.35	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	110443	9.66	ppb		97
58) 1,2,3-Trichloropropane	8.799	75	82722	9.17	ppb	#	100
59) n-Propylbenzene	8.872	91	1361620	9.79	ppb		99
60) 2-Chlorotoluene	8.951	126	277723	10.36	ppb		99
61) 4-Chlorotoluene	9.055	126	270767	10.29	ppb		98
62) 1,3,5-Trimethylbenzene	9.042	105	1028838	10.44	ppb		97
63) tert-Butylbenzene	9.353	119	801307	10.32	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	962019	10.53	ppb		97
65) sec-Butylbenzene	9.567	105	1160407	10.36	ppb		98
66) 1,3-Dichlorobenzene	9.670	146	438037	10.75	ppb		99
67) p-Isopropyltoluene	9.713	119	944872	10.71	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	453934	10.65	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	322215	10.90	ppb		98
70) n-Butylbenzene	10.109	91	832687	10.34	ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	15077	11.56	ppb		93
72) 1,2,4-Trichlorobenzene	11.707	180	101892	12.48	ppb		99
73) Hexachlorobutadiene	11.883	225	105832	13.85	ppb		99
74) Naphthalene	11.944	128	103866	10.70	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	58779	11.07	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424007.d
Acq On : 24 Apr 2014 10:17 am
Operator :
Sample : CCV0424W3
Misc : V3-125-14
ALS Vial : 7 Sample Multiplier: 1

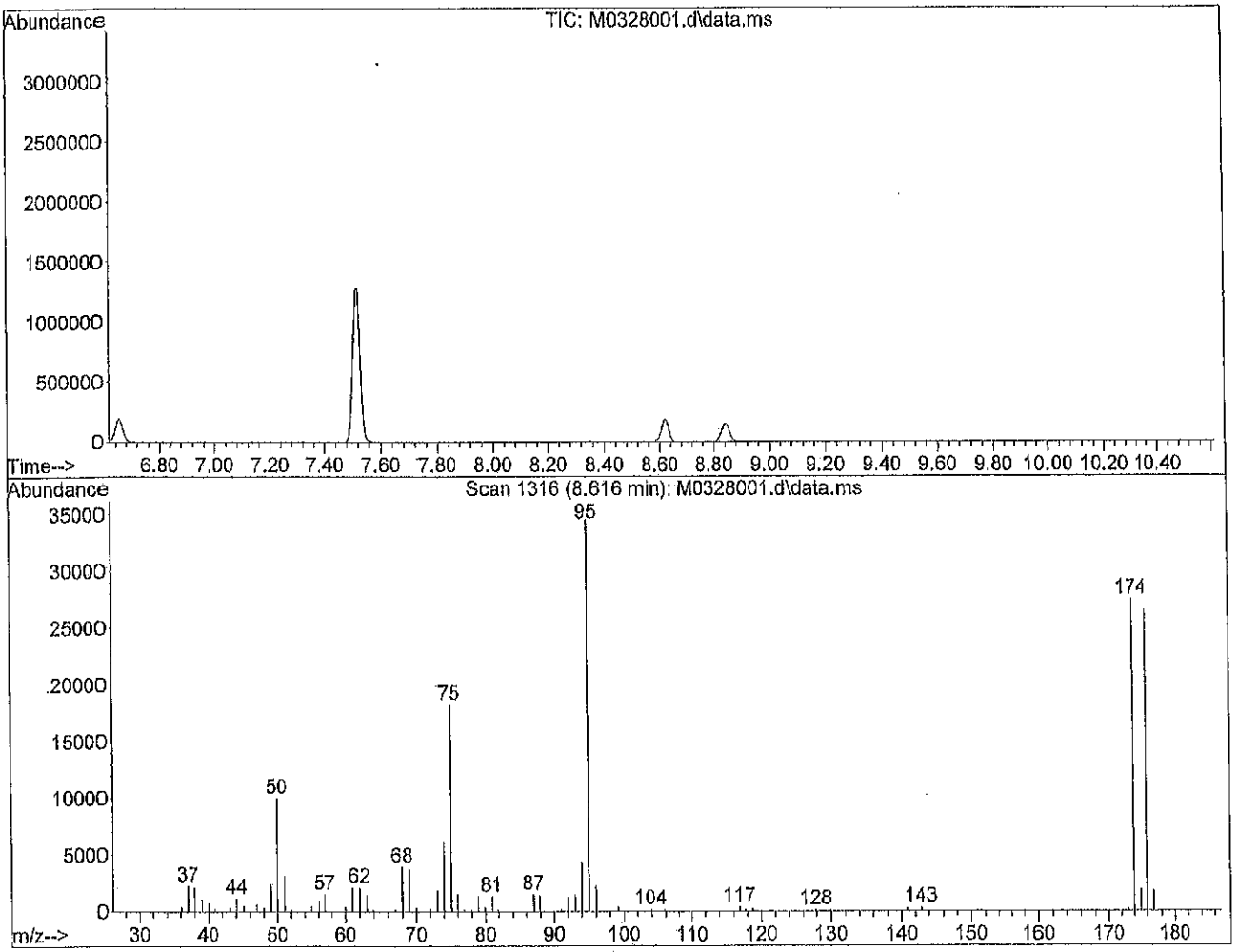
Quant Time: Apr 24 10:30:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\M140328\Snapshot\
Data File : M0328001.d
Acq On : 28 Mar 2014 6:54 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140324W.M
Title :
Last Update : Mon Mar 24 11:06:36 2014



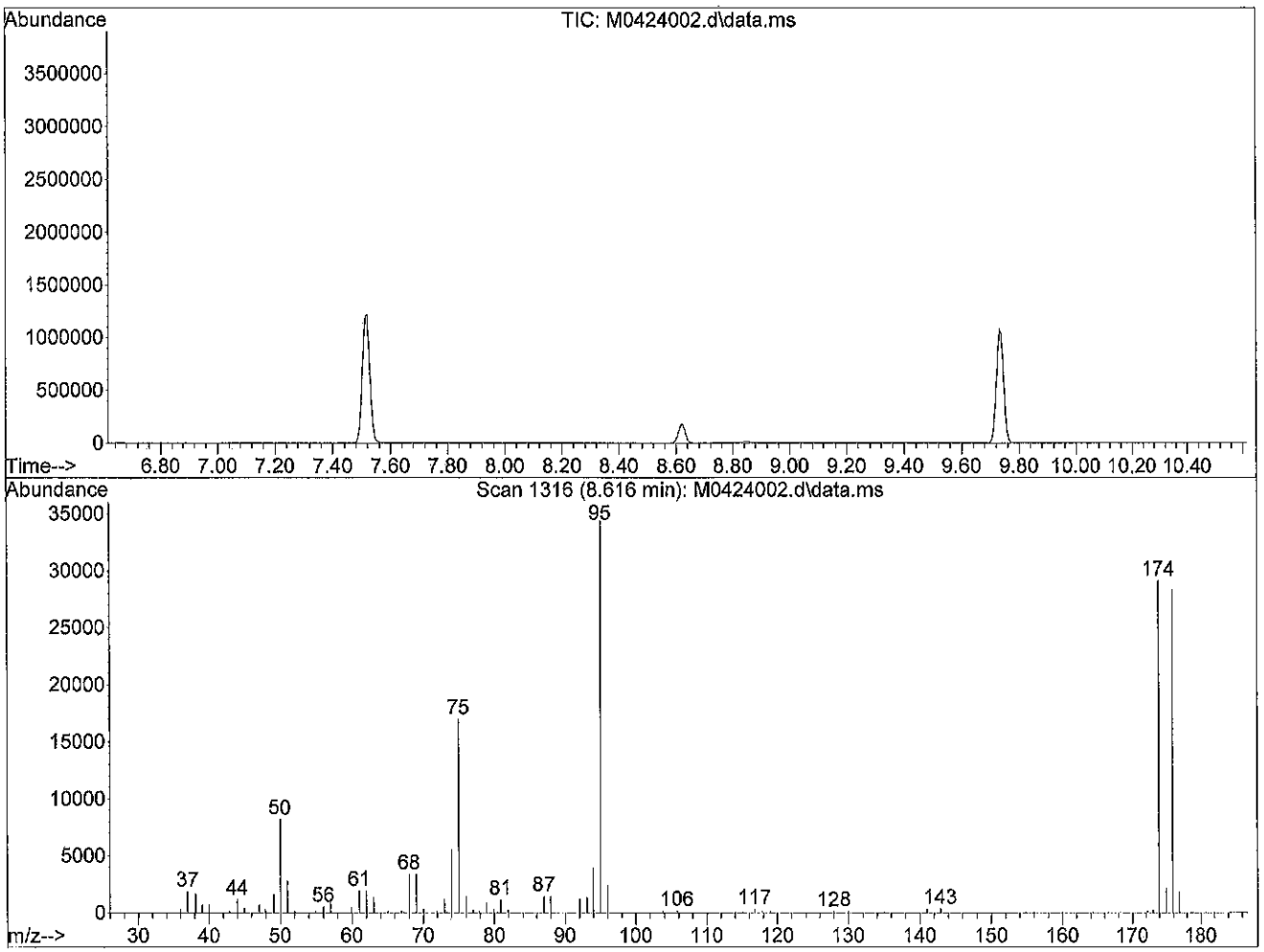
Spectrum Information: Scan 1316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	29.0	10030	PASS
75	95	30	80	52.9	18280	PASS
95	95	100	100	100.0	34536	PASS
96	95	5	9	6.6	2289	PASS
173	174	0.00	2	0.7	191	PASS
174	95	50	100	79.5	27456	PASS
175	174	5	9	7.0	1915	PASS
176	174	95	101	96.5	26504	PASS
177	176	5	9	6.6	1751	PASS

Data Path : X:\VOLATILE\MORRIS\DATA\M140424\
Data File : M0424002.d
Acq On : 24 Apr 2014 7:53 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014



Spectrum Information: Scan 1316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.0	8234	PASS
75	95	30	80	49.5	17000	PASS
95	95	100	100	100.0	34360	PASS
96	95	5	9	7.1	2437	PASS
173	174	0.00	2	0.8	219	PASS
174	95	50	100	84.8	29144	PASS
175	174	5	9	7.6	2220	PASS
176	174	95	101	97.2	28336	PASS
177	176	5	9	6.6	1862	PASS

GC/MS QA-QC Check Report

Tune File : X:\VOLATILE\MORRIS\DATA\M140424\M0424002.d
Tune Time : 24 Apr 2014 7:53 am

Daily Calibration File : X:\VOLATILE\MORRIS\DATA\M140424\M0424007.d

555321 799812 615337

260827

File	Sample	Surrogate Recovery %			Internal Standard Responses		
M0424008.d							
	SB0424W1	81	92	92	556225	819272	607674
				239241			
M0424009.d							
	SBD0424W1	80	93	94	559404	818347	621360
				242217			
M0424011.d							
	MB0424W1	82	94	93	546057	785812	609082
				242258			
M0424023.d							
	04-167-01b	86	96	94	546955	774007	615118
				244941			
M0424024.d							
	04-167-02b	84	95	93	540052	779951	604451
				239439			
M0424025.d							
	04-167-03b	84	94	92	540109	778967	607585
				246206			
M0424026.d							
	04-167-04b	83	95	94	538958	770087	607115
				246364			
M0424027.d							
	04-167-05b	82	94	92	538380	766249	595483
				234954			
M0424028.d							
	04-167-06b	85	94	93	537983	777988	608428
				239834			

(fails) - fails 12hr time check * - fails criteria

Created: Fri Apr 25 11:39:50 2014 Morris

Sequence Name: C:\msdchem\1\sequence\M140328.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140328\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0328001 M140324W 50ng bfb mass tune
2)	Sample 2	M0328002 M140324W blank
3)	Sample 3	M0328003 M140324W 0.20 PPB ICAL
4)	Sample 4	M0328004 M140324W 1.0 PPB ICAL
5)	Sample 5	M0328005 M140324W 2.0 PPB ICAL
6)	Sample 6	M0328006 M140324W 5.0 PPB ICAL
7)	Sample 7	M0328007 M140324W 10 PPB ICAL
8)	Sample 8	M0328008 M140324W BLANK
9)	Sample 9	M0328009 M140324W 25 PPB ICAL
10)	Sample 10	M0328010 M140324W BLANK
11)	Sample 11	M0328011 M140324W 50 PPB ICAL
12)	Sample 12	M0328012 M140324W BLANK
13)	Sample 13	M0328013 M140324W BLANK
14)	Sample 14	M0328014 M140324W ICV0328W1
15)	Sample 15	M0328015 M140324W BLANK
16)	Sample 16	M0328016 M140324W BLANK
17)	Sample 17	M0328017 M140324W BLANK
18)	Sample 18	M0328018 M140324W 03-202-01a 1:100 SCREEN
19)	Sample 19	M0328019 M140324W 03-202-02a 1:100 SCREEN
20)	Sample 20	M0328020 M140324W 03-202-03a 1:100 SCREEN
21)	Sample 21	M0328021 M140324W 03-202-04a 1:100 SCREEN
22)	Sample 22	M0328022 M140324W 03-206-04c 1:100 SCREEN
23)	Sample 23	M0328023 M140324W 03-206-08c 1:100 SCREEN
24)	Sample 24	M0328024 M140324W 03-206-12c 1:100 SCREEN
25)	Sample 25	M0328025 M140324W 03-206-16c 1:100 SCREEN
26)	Sample 26	M0328026 M140324W 03-207-01a 1:100 SCREEN
27)	Sample 27	M0328027 M140324W 03-207-02a 1:100 SCREEN
28)	Sample 28	M0328028 M140324W 03-207-03a 1:100 SCREEN
29)	Sample 29	M0328029 M140324W 03-207-04a 1:100 SCREEN
30)	Sample 30	M0328030 M140324W 03-207-05a 1:100 SCREEN
31)	Sample 31	M0328031 M140324W 03-207-06a 1:100 SCREEN
32)	Sample 32	M0328032 M140324W 03-207-07a 1:100 SCREEN
33)	Sample 33	M0328033 M140324W 03-207-08a 1:100 SCREEN
34)	Sample 34	M0328034 M140324W 03-207-09a 1:100 SCREEN

Sequence Name: C:\msdchem\1\sequence\M140424.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140424\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0424001 M140328W 50ng bfb mass tune
2)	Sample 2	M0424002 M140328W 50ng bfb mass tune
3)	Sample 3	M0424003 M140328W CCV0424W1
4)	Sample 4	M0424004 M140328W CCV0424W2
5)	Sample 5	M0424005 M140328W 04-182-01a 1:100 SCREEN
6)	Sample 6	M0424006 M140328W 04-182-02a 1:100 SCREEN
7)	Sample 7	M0424007 M140328W CCV0424W3
8)	Sample 8	M0424008 M140328W SB0424W1
9)	Sample 9	M0424009 M140328W SBD0424W1
10)	Sample 10	M0424010 M140328W NEW H2O VOA TEST 4
11)	Sample 11	M0424011 M140328W MB0424W1
12)	Sample 12	M0424012 M140328W 04-157-02b
13)	Sample 13	M0424013 M140328W 04-157-03b
14)	Sample 14	M0424014 M140328W 04-157-04b
15)	Sample 15	M0424015 M140328W 04-157-05b
16)	Sample 16	M0424016 M140328W MB0424A1 1:5
17)	Sample 17	M0424017 M140328W 04-193-02A 1:5
18)	Sample 18	M0424018 M140328W 04-193-01A 1:5
19)	Sample 19	M0424019 M140328W 04-193-01A 1:5 DUP
20)	Sample 20	M0424020 M140328W 04-157-01b
21)	Sample 21	M0424021 M140328W BLANK
22)	Sample 22	M0424022 M140328W 04-157-06b
23)	Sample 23	M0424023 M140328W 04-167-01b
24)	Sample 24	M0424024 M140328W 04-167-02b
25)	Sample 25	M0424025 M140328W 04-167-03b
26)	Sample 26	M0424026 M140328W 04-167-04b
27)	Sample 27	M0424027 M140328W 04-167-05b
28)	Sample 28	M0424028 M140328W 04-167-06b
29)	Sample 29	M0424029 M140328W 04-182-01b

OnSite Environmental Inc.

WATER EXTRACTION LOG

Instrument Run #: M140424
Date: 4-24-14

Int. Std./Surr. Stock#: V3-125-12 / V3-125-13
Matrix Spike Stock#: V3-125-5

# of Sample	Date	Sample I.D.	Volume	pH of Sample	Analyst	Miscellaneous
	4-24-14	MB042Hw1	25mL	7	SD	
		SB042Hw1		7		
		SBD042Hw1		7		
1		04-157-01b		2		
2		-02b		2		
3		-03b		2		
4		-04b		2		
5		-05b		2		
6		-06b		2		
7		04-167-01b		2		
8		-02b		2		
9		-03b		2		
10		-04b		2		
11		-05b		2		
12		-06b		2		
13		04-182-01b		2		
14		-02b				DIDN'T RUN - RUN STOPPED SD 4-25-14
		MB042HA1	5mL	N/A		AIR 1:5
1		04-193-01A				
2		-02A				
		-01ADUP				

SD 4-24-14

TITLE PROJECT

Continued from page 114

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
VOC ADD'S	V3-115-1	AccuStandard® M-8260-ADD-10X Method 8260 Additions 2.0 mg/mL in MeOH Lot: 213091338 Exp: Jan 25,2014 8 comps. HIGHLY FLAMMABLE			1 mL			10-1-13	SD
250 ppm ICAL	V3-115-2	V3-114-4	2000 ppm	25 µL	1 mL	250 ppm	MeOH	10-1-13	SD
		V3-114-16							
		V3-115-1							
50 ppm ICAL	V3-115-3	V3-115-2	250 ppm	200 µL	1 mL	50 ppm	MeOH	10-1-13	SD
10 ppm ICAL	V3-115-4	V3-115-3	50 ppm	200 µL	1 mL	10 ppm	MeOH	10-1-13	SD
5 ppm ICAL	V3-115-5	V3-115-3	50 ppm	100 µL	1 mL	5 ppm	MeOH	10-1-13	SD
1 ppm ICAL	V3-115-6	V3-115-3	50 ppm	20 µL	1 mL	1 ppm	MeOH	10-1-13	SD
50 ppm SS (true)	V3-115-7	V3-113-16	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
50 ppm ICV	V3-115-8	V3-101-7	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
		V3-101-8							
		V3-101-9							
50 ppm CCV	V3-115-9	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
		V3-114-16							
		V3-115-1							
2000 ppm SS	V3-115-10	AccuStandard® M-8240/60-SS-10X Surrogate Standard VOA Mix 2.0 mg/mL in MeOH Lot: 212051380 Exp: Jun 1,2022 4 comps. HIGHLY FLAMMABLE			1 mL			10-7-13	SD
250 ppm SS	V3-115-11	V3-113-16	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-7-13	SD
		V3-115-10							
250 ppm IS	V3-115-12	V3-114-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-8-13	SD
WORK 50 ppm SS	V3-115-13	V3-115-10	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	SD
50 ppm IS	V3-115-14	V3-114-14	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	SD
.05 ppm ICAL	V3-115-15	V3-115-6	1 ppm	.050 mL	1 mL	.050 ppm	MeOH	10-9-13	SD
50 ppm CCV	V3-115-16	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-10-13	SD
		V3-114-16							
		V3-115-1							
2500 ppm MS	V3-115-17	AccuStandard® CLP-003-R-10X Purgeable Organic Matrix Spiking Soln. 2.5 mg/mL in MeOH Lot: 212011385 Exp: Feb 6,2022 5 comps. HIGHLY FLAMMABLE			1 mL			10-10-13	SD

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Freeze (<-10° C)
Danger

FOR LABORATORY USE ONLY
STORAGE Ambient

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Freeze (<-10° C)
Danger

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Continued from page 120

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
2000 ppm IS	V3-121-1							2-3-14	SD
250 ppm IS	V3-121-2	V3-120-8 + V3-121-1	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-3-14	SD
50 ppm IS	V3-121-3	V3-119-9	2500 ppm	20 mL	1 mL	50 ppm	MeOH	2-3-14	SD
2000 ppm SS	V3-121-4							2-4-14	SD
250 ppm SS	V3-121-13 + V3-121-4	2000 ppm	500 mL	4 mL	1 mL 250 ppm	250 ppm MeOH	MeOH	2-4-14	SD
250 ppm SS	V3-121-5	V3-120-13 + V3-121-4	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-4-14	SD
VOC Liquids	V3-121-6							2-5-14	SD
VOC ADD IS	V3-121-7							2-5-14	SD
VOC GASES	V3-121-8							2-5-14	SD
250 ppm ICAL	V3-121-9	V3-121-6 V3-121-7 V3-121-8	2000 ppm	125 mL	1 mL	250 ppm	MeOH	2-5-14	SD
50 ppm ICAL	V3-121-10	V3-121-9	250 ppm	200 mL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ICAL	V3-121-11	V3-121-10	50 ppm	200 mL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ICAL	V3-121-12	V3-121-10	50 ppm	100 mL	1 mL	5 ppm	MeOH	2-5-14	SD

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
~~Surrogate~~ Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 212051380 4 comps.
Exp: Jun 1,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 213121006 8 comps.
Exp: Apr 3,2014 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Califor to cause cancer and birth defects or ot reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502B-10X 1 mL
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424 6 comps.
Exp: May 2,2016 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

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ANALYTE	LAB ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Initials
1 ppm ICAL	V3-122-1	V3-121-10	50 ppm	20 mL	1 mL	1 ppm	MeOH	2-5-14	SD
5 ppm ICAL	V3-122-2	V3-121-1	1 ppm	5 mL	0.5 mL	0.5 ppm	MeOH	2-5-14	SD
ICV VOC LIQUIDS	V3-122-3								
ICV VOC ADDs	V3-122-4								
ICV VOC GASES	V3-122-5								
50 ppm ICV	V3-122-6	V3-122-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-5-14	SD
		V3-122-4	"	"	"	"	"	"	"
		V3-122-5	"	"	"	"	"	"	"
100 ppm ACRYL/DCB	V3-122-7	V3-117-11	100 ppm	500 µL	1 mL	100 ppm	MeOH	2-5-14	SD
		V3-117-12	100 ppm	500 µL					
50 ppm ACRYL/DCB	V3-122-8	V3-122-7	100 ppm	500 µL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ACRYL/DCB	V3-122-9	V3-122-8	50 ppm	200 µL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ACRYL/DCB	V3-122-10	V3-122-8	50 ppm	100 µL	1 mL	5 ppm	MeOH	2-5-14	SD
50 ppm CCV	V3-122-11	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-7-14	SD
		V3-121-7	2000 ppm	25 mL	"	"	"	"	"
		V3-121-8	2000 ppm	25 mL	"	"	"	"	"
25 ppm IS	V3-122-12	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-18-14	SD
250 ppm IS	V3-122-13	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-24-14	SD
2000 ppm IS	V3-122-14								
250 ppm IS	V3-122-15	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-24-14	SD
		V3-122-14	"	"	"	"	"	"	"

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AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-502A-R3-10X
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
1 mL
Lot: 213091216
Exp: Sep 19,2016
55 comps.
HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
1 mL
Lot: 214011413
Exp: Jun 3,2014
8 comps.
HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Califor to cause cancer and birth defects or oth reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
1 mL
Lot: 213071142
Exp: Jul 17,2016
6 comps.
HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
1 mL
Lot: 212111287
Exp: Nov 19,2022
4 comps.
HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
50 ppm SS (tune)	V3-123-1	V3-121-4	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-26-14	SD
50 ppm CCV	V3-123-2	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	2-27-14	SD
		V3-121-7							
		V3-121-8							
waldo 50 ppm IS	V3-123-3	V3-122-14	2000 ppm	100 µL	4 mL	50 ppm	MeOH	2-27-14	EEN
waldo 50 ppm SS	V3-123-4	V3-121-4	2000 ppm	100 µL	4 mL	50 ppm	MeOH	2-27-14	EEN
~~2000 ppm SS~~	V3-123-5							2-28-14	SD
								spent 3-2-14	
Albert 250 ppm SS	V3-123-6	V3-121-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-28-14	SD
		V3-123-5							
Morris 50 ppm I.S.	V3-123-7	V3-122-14	2000 ppm	625 µL	25 mL	50 ppm	MeOH	3-6-14	SD
2000 ppm IS	V3-123-8							3-10-14	SD
								spent 3-12-14	SD
Albert 250 ppm IS	V3-123-9	V3-122-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
		V3-123-8							
Albert 250 ppm SS	V3-123-10	V3-123-5	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
50 ppm CCV	V3-123-11	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-10-14	SD
		V3-121-7							
		V3-121-8							
50 ppm CCV	V3-123-12	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-13-14	SD
		V3-121-7							
		V3-121-8							
VOC GASES	V3-123-13							3-13-14	SD
50 ppm CCV	V3-123-14	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-13-14	SD
		V3-121-7							
		V3-123-13							

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028
Exp: Nov 6,2023
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287
Exp: Nov 19,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424
Exp: May 2,2016
1 mL
6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
Danger

Continued to page

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Continued from page 123	Lab ID	Stock ID	Stock conc	Stock Vol	Final Vol	Final conc	Solvent	Date	Initials
Analyte									
250 ppm IS/SS	V3-124-1	V3-123-8	2000 ppm	250 µL	2 mL	250 ppm	MeOH	3-14-14	EEM
		V3-123-5		250 µL					
~~50 ppm MS~~	~~V3-124-2~~	~~V3-115-7~~	~~2500 ppm~~	~~200 µL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~ discarded 3-24-14
50 ppm ICV	V3-124-3	V3-122-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-19-14	SD
		V3-123-4							
		V3-123-5							
VOC Liquids	V3-124-4							3-19-14	SD
VOC ADD's	V3-124-5							3-19-14	SD
250 ppm ICAL	V3-124-6	V3-123-13	2000 ppm	125 mL	1 mL	250 ppm	MeOH	3-19-14	SD
		V3-124-4							
		V3-124-5							
50 ppm ICAL	V3-124-7	V3-124-6	250 ppm	200	1 mL	50 ppm	MeOH	3-19-14	SD
10 ppm ICAL	V3-124-8	V3-124-7	50 ppm	200	1 mL	10 ppm	MeOH	3-19-14	SD
5 ppm ICAL	V3-124-9	V3-124-7	50 ppm	100	1 mL	5 ppm	MeOH	3-19-14	SD
1 ppm ICAL	V3-124-10	V3-124-7	50 ppm	20	1 mL	1 ppm	MeOH	3-19-14	SD
~~CCV 50 ppm~~	~~V3-124-11~~	~~V3-123-13~~	~~2000 ppm~~	~~25 mL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~ discarded 3-24-14
		V3-124-4							
		V3-124-5							
2000 ppm SS	V3-124-12							3-21-14	SD
~~250 ppm IS~~	~~V3-124-13~~	~~V3-123-8~~	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~ discarded 3-31-14
~~250 ppm SS~~	~~V3-124-14~~	~~V3-123-5~~	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~ spiked 3-31-14
		V3-124-12							
2000 ppm IS	V3-124-15							3-31-14	SD

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AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-502A-R3-10X
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
1 mL
55 comps.
Lot: 212081619
Exp: Aug 30,2015
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
1 mL
8 comps.
Lot: 214021286
Exp: Jun 28,2014
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Storage: Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
1 mL
4 comps.
Lot: 213111028
Exp: Nov 6,2023
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
1 mL
4 comps.
Lot: 212111287
Exp: Nov 19,2022
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

TITLE

PROJECT

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	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
Albert	250 ppm IS	V3-125-1	V3-123-8		500 mL	4 mL	250 ppm	MeOH	3-31-14	SD
			V3-124-15	2000 ppm						
Albert	250 ppm SS	V3-125-2	V3-124-12	2000 ppm	500 mL	4 mL	250 ppm	MeOH	3-31-14	SD
Albert	250 ppm IS	V3-125-3	V3-124-15	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-9-14	SD
	50 ppm CCV	V3-125-4	V3-123-13	2000 ppm	2000 ppm 25 mL	1 mL 5 mL	50 ppm 1 mL	MeOH	4-9-14	SD
			V3-124-4							
			V3-124-5							
	50 ppm M.S.	V3-125-5	V3-115-17	2500 ppm	20 mL	1 mL	50 ppm	MeOH	4-9-14	SD
Albert	250 ppm SS	V3-125-6	V3-124-12	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-16-14	SD
Albert	250 ppm IS	V3-125-7	V3-124-15	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-16-14	SD
	2000 ppm IS	V3-125-8							4-21-14	SD
	2000 ppm SS	V3-125-9							4-21-14	SD
Albert	250 ppm IS	V3-125-10	V3-124-15	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-21-14	SD
Albert	250 ppm SS	V3-125-11	V3-125-9	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-21-14	SD
Morris	50 ppm IS	V3-125-12	V3-125-8	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
Morris	50 ppm SS	V3-125-13	V3-125-9	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
	50 ppm CCV	V3-125-14	V3-123-13	2000 ppm	25 mL	1 mL	50 ppm	MeOH	4-22-14	SD
			V3-124-4							
			V3-124-5							
Albert	250 ppm IS	V3-125-15	V3-125-8	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-25-14	SD
Albert	250 ppm SS	V3-125-16	V3-125-9	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-25-14	SD

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19, 2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
Storage: Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6, 2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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PROPRIETARY INFORMATION

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

April 29, 2014

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0180-121-09
Laboratory Reference No. 1404-168

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on April 21, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: April 29, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-168
Project: 0180-121-09

Case Narrative

Samples were collected on April 18, 2014 and received by the laboratory on April 21, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: April 29, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-168
Project: 0180-121-09

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-104A-140418	04-168-01	Water	4-18-14	4-21-14	
MW-104B-140418	04-168-02	Water	4-18-14	4-21-14	
TW-4-140418	04-168-03	Water	4-18-14	4-21-14	
TW-8-140418	04-168-04	Water	4-18-14	4-21-14	
ST-1-140418	04-168-05	Water	4-18-14	4-21-14	
TW-16-140418	04-168-06	Water	4-18-14	4-21-14	
RIN-2-140418	04-168-07	Water	4-18-14	4-21-14	
TB-2-140418	04-168-08	Water	4-18-14	4-21-14	

Date of Report: April 29, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-168
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-104A-140418**					
Laboratory ID:	04-168-01					
Vinyl Chloride	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Trichloroethene	3.9	0.20	EPA 8260C	4-28-14	4-28-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*104*	*62-122*				
Toluene-d8	*98*	*70-120*				
4-Bromofluorobenzene	*107*	*71-120*				

Date of Report: April 29, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-168
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-104B-140418**					
Laboratory ID:	04-168-02					
Vinyl Chloride	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Trichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Tetrachloroethene	0.99	0.20	EPA 8260C	4-28-14	4-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*106*	*62-122*				
Toluene-d8	*98*	*70-120*				
4-Bromofluorobenzene	*109*	*71-120*				

Date of Report: April 29, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-168
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TW-4-140418**					
Laboratory ID:	04-168-03					
Vinyl Chloride	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Trichloroethene	0.43	0.20	EPA 8260C	4-28-14	4-28-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*105*	*62-122*				
Toluene-d8	*97*	*70-120*				
4-Bromofluorobenzene	*105*	*71-120*				

Date of Report: April 29, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-168
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TW-8-140418**					
Laboratory ID:	04-168-04					
Vinyl Chloride	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Trichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*106*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*106*	*71-120*				

Date of Report: April 29, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-168
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ST-1-140418**					
Laboratory ID:	04-168-05					
Vinyl Chloride	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Trichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*104*	*62-122*				
Toluene-d8	*98*	*70-120*				
4-Bromofluorobenzene	*108*	*71-120*				

Date of Report: April 29, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-168
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TW-16-140418**					
Laboratory ID:	04-168-06					
Vinyl Chloride	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Trichloroethene	9.6	0.20	EPA 8260C	4-28-14	4-28-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*105*	*62-122*				
Toluene-d8	*98*	*70-120*				
4-Bromofluorobenzene	*107*	*71-120*				

Date of Report: April 29, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-168
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RIN-2-140418**					
Laboratory ID:	04-168-07					
Vinyl Chloride	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Trichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*104*	*62-122*				
Toluene-d8	*95*	*70-120*				
4-Bromofluorobenzene	*109*	*71-120*				

Date of Report: April 29, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-168
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TB-2-140418**					
Laboratory ID:	04-168-08					
Vinyl Chloride	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Trichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*110*	*71-120*				

Date of Report: April 29, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-168
Project: 0180-121-09

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0428W2					
Vinyl Chloride	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Trichloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-28-14	4-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*108*	*71-120*				

Date of Report: April 29, 2014
Samples Submitted: April 21, 2014
Laboratory Reference: 1404-168
Project: 0180-121-09

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0428W2									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**11.8**	**11.3**	10.0	10.0	118	113	63-142	4	17	
Benzene	**11.6**	**10.9**	10.0	10.0	116	109	78-125	6	15	
Trichloroethene	**8.53**	**8.00**	10.0	10.0	85	80	80-125	6	15	
Toluene	**11.0**	**10.5**	10.0	10.0	110	105	80-125	5	15	
Chlorobenzene	**10.8**	**10.2**	10.0	10.0	108	102	80-140	6	15	
Surrogate:										
Dibromofluoromethane					*103*	*98*	*62-122*			
Toluene-d8					*97*	*98*	*70-120*			
4-Bromofluorobenzene					*111*	*111*	*71-120*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Page 1 of 1

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Laboratory Number: 04-168

Company: GEI
Project Number: 0180-121-09
Project Name: Palermo
Project Manager: Nick Rohrbach
Sampled by: PDR/HLM

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C proj list	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
1	MW-104A-140418	4/18/14	1015	GW	3					X											
2	MW-104B-140418		1210		3					X											
3	TW-4-140418		1310		3					X											
4	TW-8-140418		1320		3					X											
5	ST-1-140418		1325		3					X											
6	TW-16-140418		1400		3					X											
7	RIN-2-140418		1430		3					X											
8	TB-2-140418				2					X											

	Signature	Company	Date	Time
Relinquished		GEI	4/21/14	1001
Received		Speed	4-21-14	1001
Relinquished		Speed	4-21-14	1114
Received		GEI	4/21/14	1114
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☒ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 0180-121-09

OnSite Project Number: 04-168

Initiated by: MN

Date Initiated: 4/21/14

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 1		
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A			
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	Yes	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	Yes	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

Complete Data Package

- Volatiles by EPA 8260C

Volatiles by EPA 8260C Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428012.d
Acq On : 28 Apr 2014 3:32 pm
Operator :
Sample : 04-168-01c
Misc :
ALS Vial : 12 Sample Multiplier: 1

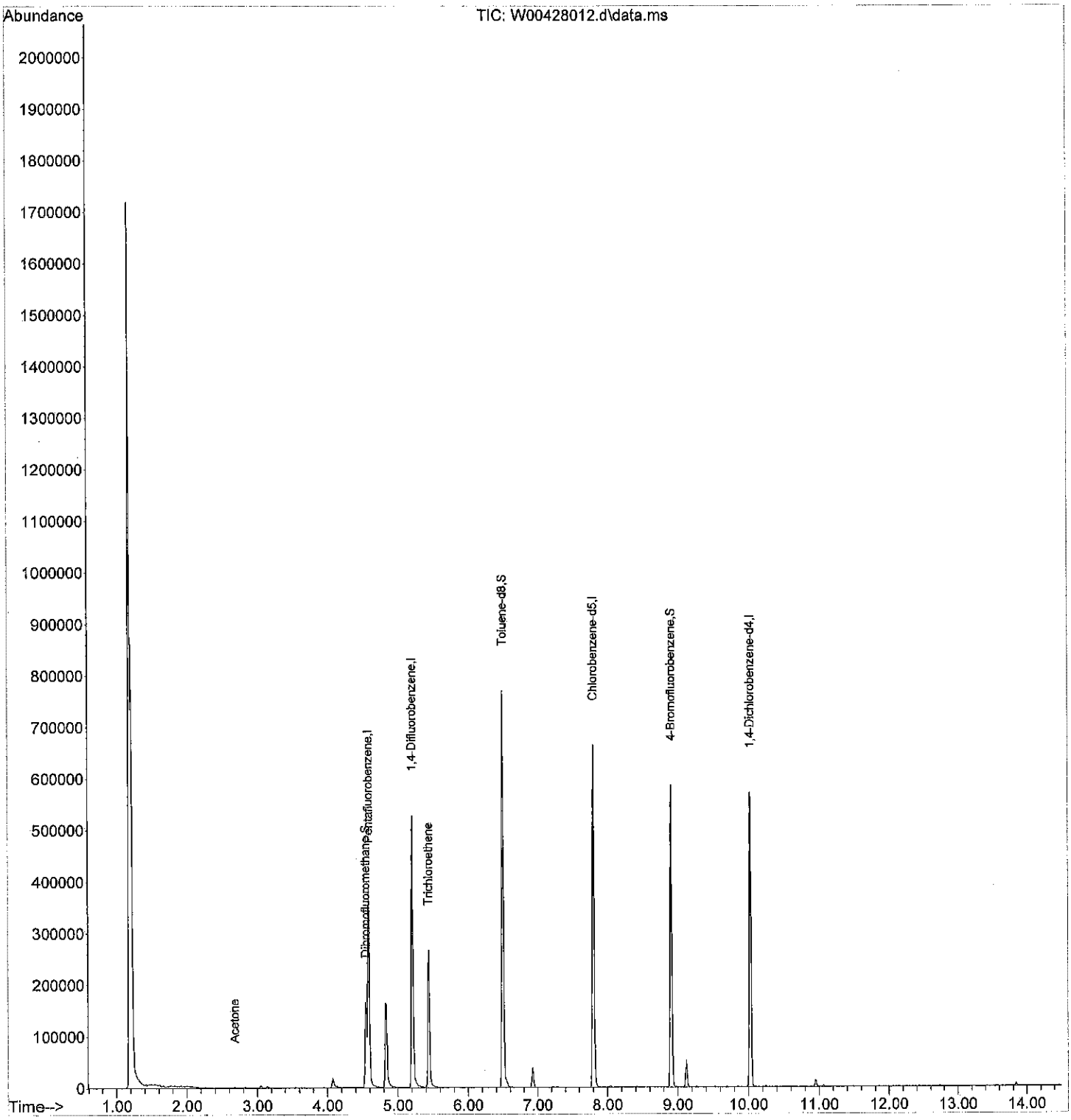
Quant Time: Apr 28 15:59:07 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

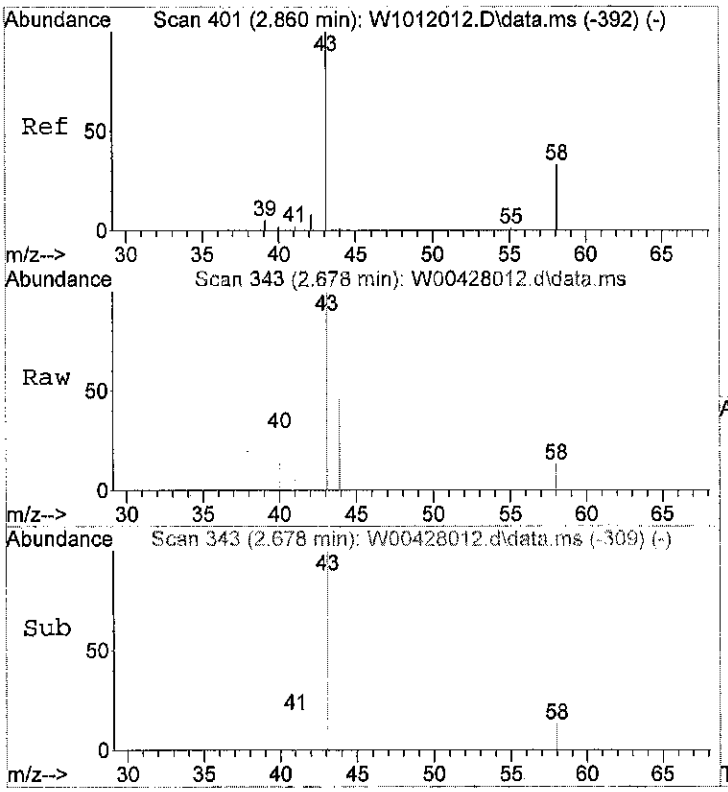
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.586	168	225297	10.00	ppb	0.00
28) 1,4-Difluorobenzene	5.208	114	381505	10.00	ppb	0.00
38) Chlorobenzene-d5	7.799	117	363021	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	10.024	152	149199	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.543	111	105389	10.43	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 104.30%			
36) Toluene-d8	6.494	98	467628	9.79	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 97.90%			
54) 4-Bromofluorobenzene	8.908	95	209310	10.68	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 106.80%			
Target Compounds						Qvalue
9) Acetone	2.678	43	2046	0.37	ppb	# 82
29) Trichloroethene	5.439	130	79289	3.85	ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428012.d
Acq On : 28 Apr 2014 3:32 pm
Operator :
Sample : 04-168-01c
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 28 15:59:07 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

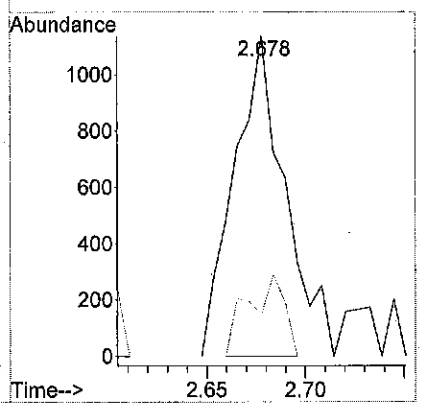


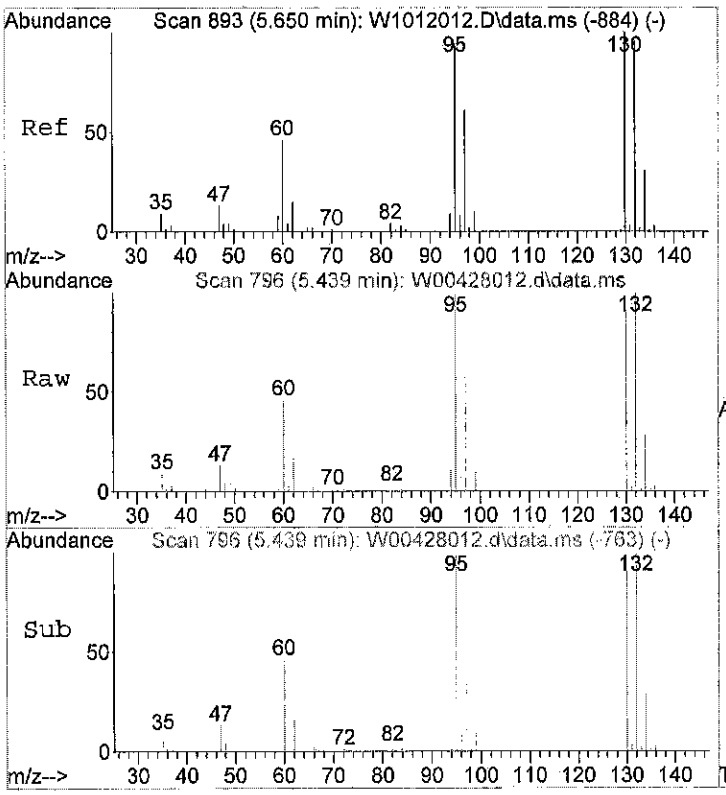


#9
Acetone
Concen: 0.37 ppb
RT: 2.678 min Scan# 343
Delta R.T. 0.006 min
Lab File: W00428012.d
Acq: 28 Apr 2014 3:32 pm

Tgt Ion: 43 Resp: 2046

Ion	Ratio	Lower	Upper
43	100		
58	18.4	22.2	33.4#

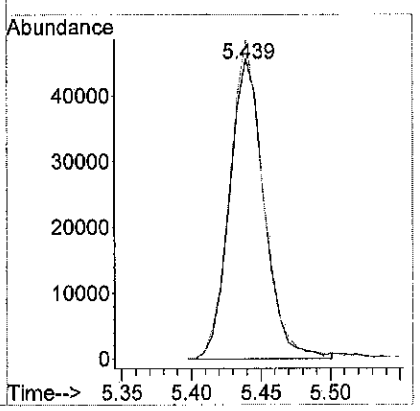




#29
Trichloroethene
Concen: 3.85 ppb
RT: 5.439 min Scan# 796
Delta R.T. -0.001 min
Lab File: W00428012.d
Acq: 28 Apr 2014 3:32 pm

Tgt Ion:130 Resp: 79289

Ion	Ratio	Lower	Upper
130	100		
132	104.8	80.7	121.1



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428013.d
Acq On : 28 Apr 2014 3:59 pm
Operator :
Sample : 04-168-02c
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 28 16:35:29 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

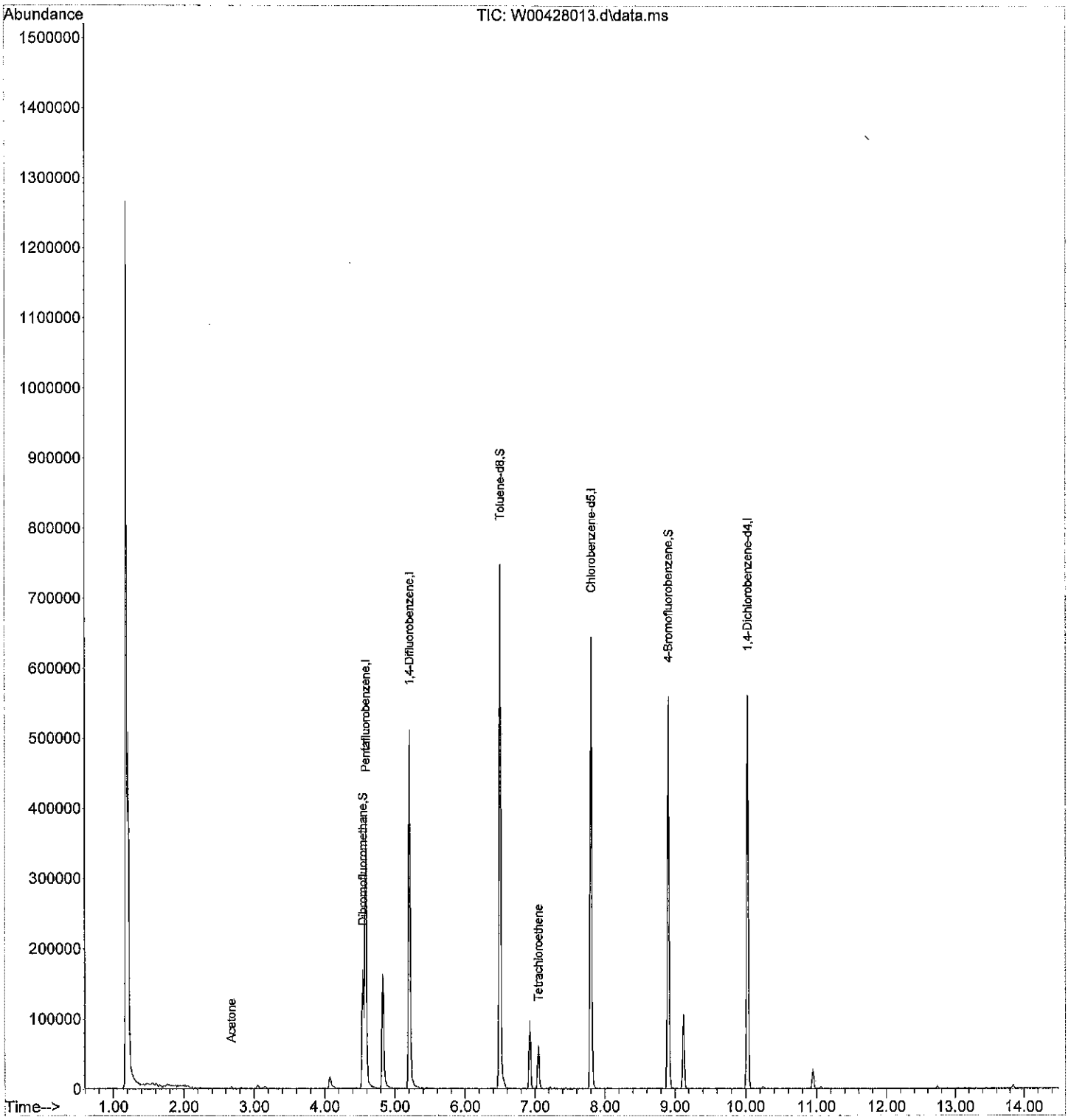
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.586	168	218761	10.00	ppb	0.00
28) 1,4-Difluorobenzene	5.208	114	374106	10.00	ppb	0.00
38) Chlorobenzene-d5	7.799	117	350775	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	10.024	152	148475	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.543	111	103819	10.58	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 105.80%			
36) Toluene-d8	6.494	98	459004	9.80	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 98.00%			
54) 4-Bromofluorobenzene	8.902	95	207130	10.94	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 109.40%			
Target Compounds						Qvalue
9) Acetone	2.678	43	2365	0.44	ppb	90
41) Tetrachloroethene	7.049	166	18312	0.99	ppb	95

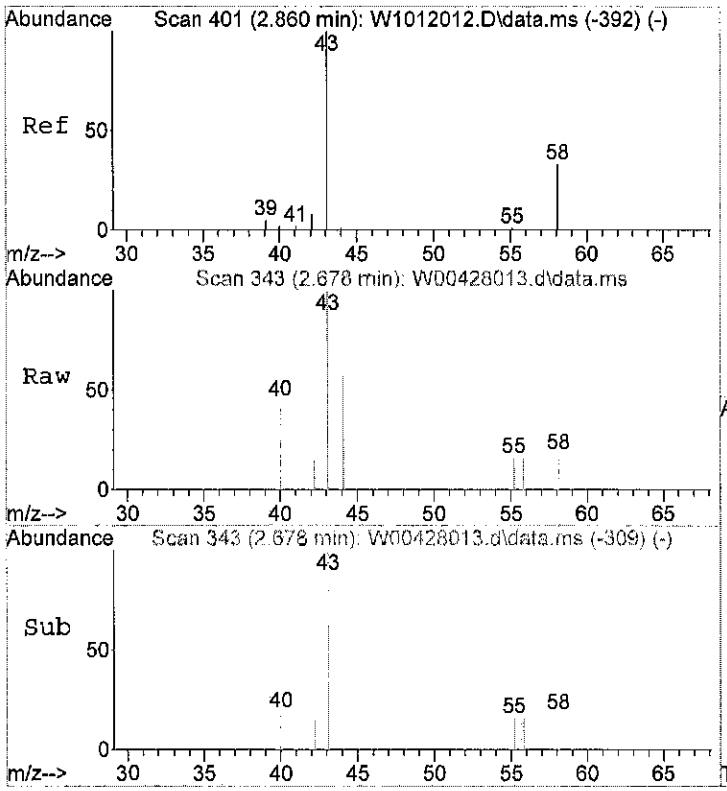
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428013.d
Acq On : 28 Apr 2014 3:59 pm
Operator :
Sample : 04-168-02c
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 28 16:35:29 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

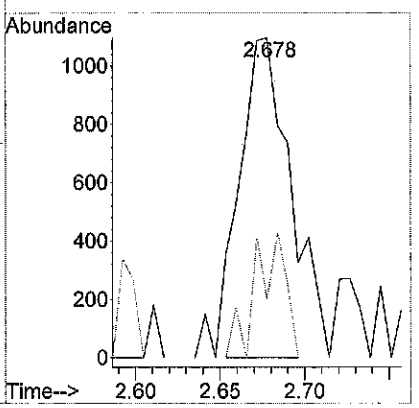


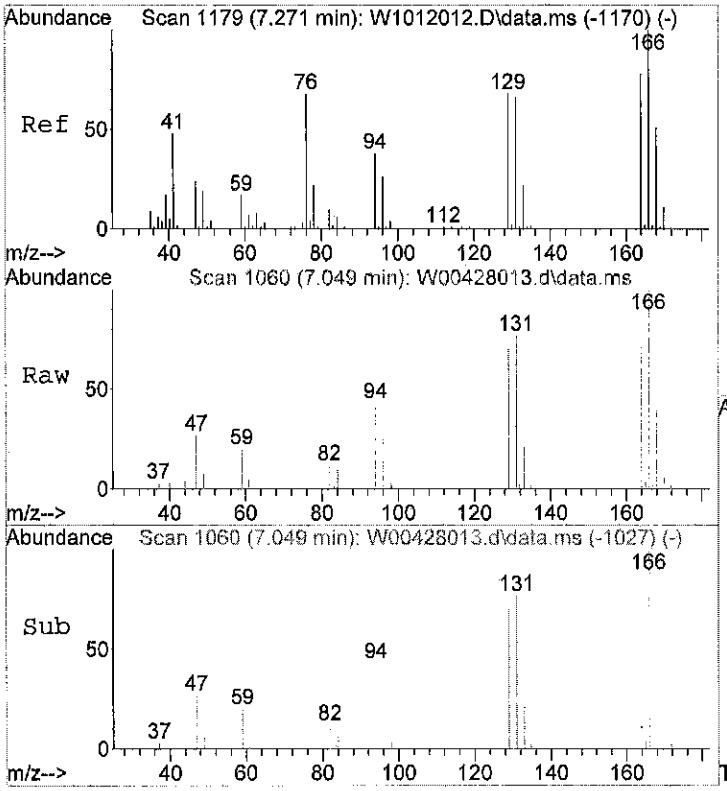


#9
Acetone
Concen: 0.44 ppb
RT: 2.678 min Scan# 343
Delta R.T. 0.006 min
Lab File: W00428013.d
Acq: 28 Apr 2014 3:59 pm

Tgt Ion: 43 Resp: 2365

Ion	Ratio	Lower	Upper
43	100		
58	22.7	22.2	33.4

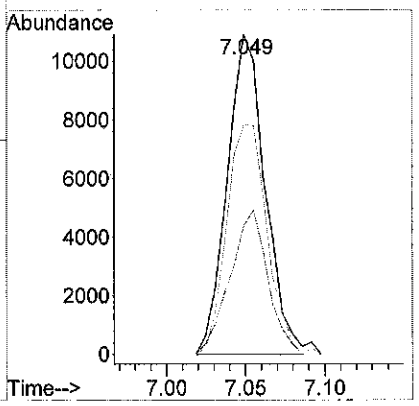




#41
Tetrachloroethene
Concen: 0.99 ppb
RT: 7.049 min Scan# 1060
Delta R.T. -0.000 min
Lab File: W00428013.d
Acq: 28 Apr 2014 3:59 pm

Tgt Ion:166 Resp: 18312

Ion	Ratio	Lower	Upper
166	100		
168	44.6	38.7	58.1
164	75.7	63.6	95.4



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428014.d
Acq On : 28 Apr 2014 4:25 pm
Operator :
Sample : 04-168-03c
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 28 16:44:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

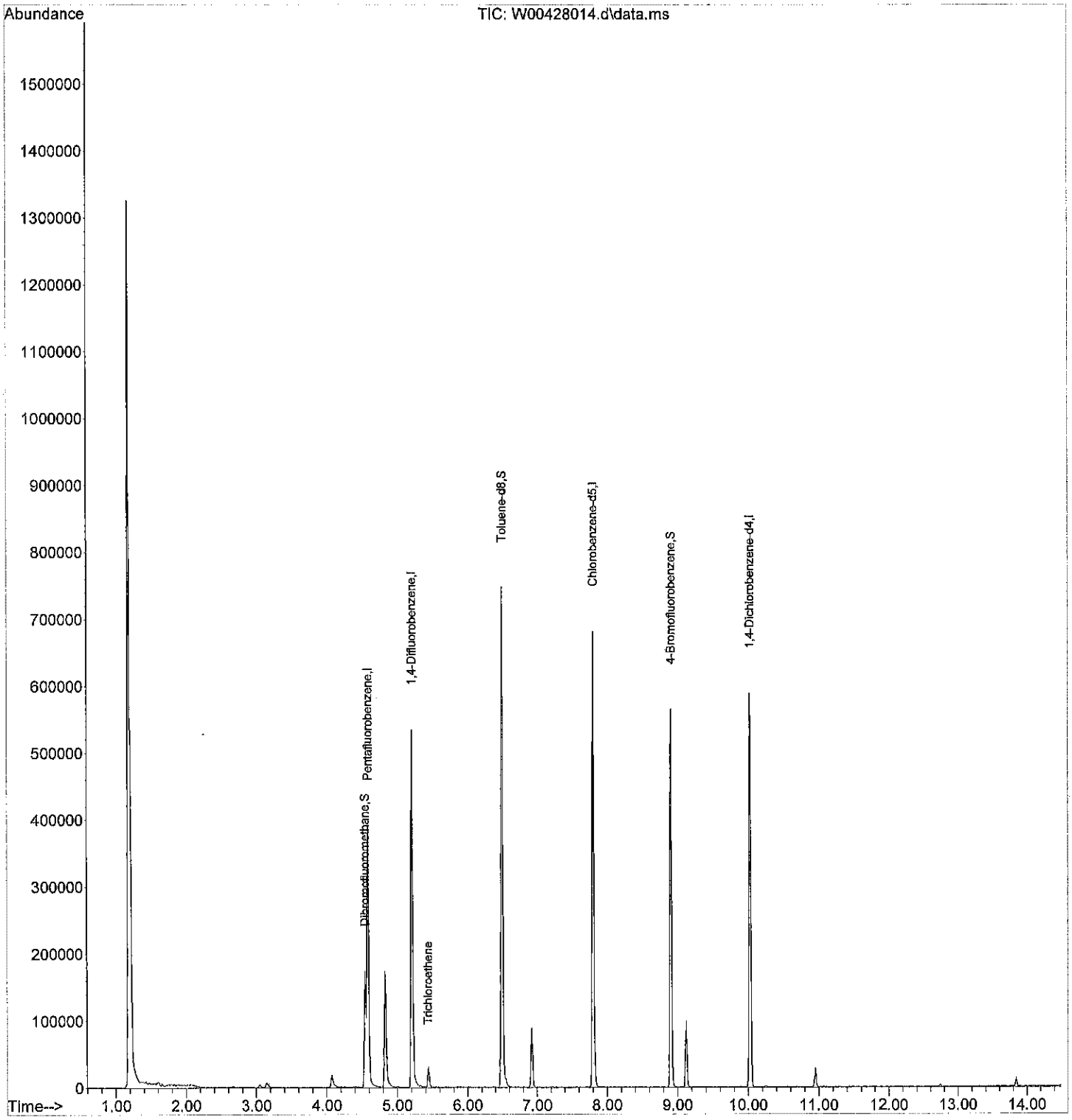
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.586	168	228099	10.00	ppb	0.00
28) 1,4-Difluorobenzene	5.208	114	382310	10.00	ppb	0.00
38) Chlorobenzene-d5	7.799	117	367102	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	10.024	152	152757	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.543	111	107190	10.47	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 104.70%			
36) Toluene-d8	6.494	98	465122	9.71	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 97.10%			
54) 4-Bromofluorobenzene	8.908	95	208636	10.53	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 105.30%			
Target Compounds						Qvalue
29) Trichloroethene	5.433	130	8841	0.43	ppb	99

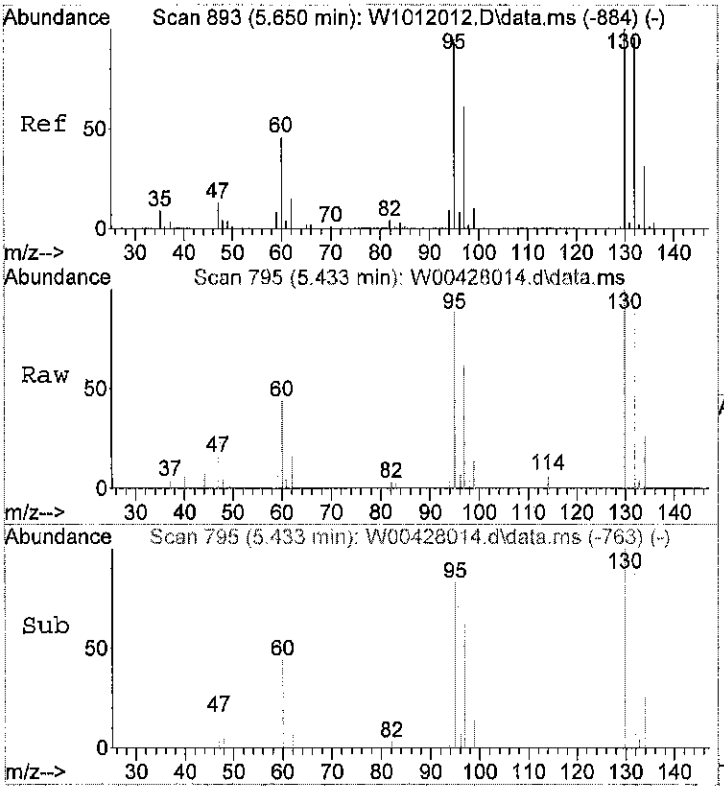
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428014.d
Acq On : 28 Apr 2014 4:25 pm
Operator :
Sample : 04-168-03c
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 28 16:44:32 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

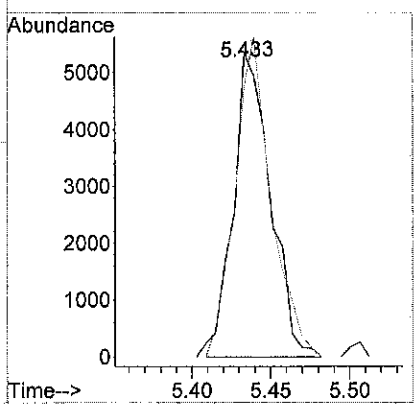




#29
Trichloroethene
Concen: 0.43 ppb
RT: 5.433 min Scan# 795
Delta R.T. -0.007 min
Lab File: W00428014.d
Acq: 28 Apr 2014 4:25 pm

Tgt Ion:130 Resp: 8841

Ion	Ratio	Lower	Upper
130	100		
132	101.7	80.7	121.1



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428015.d
Acq On : 28 Apr 2014 4:52 pm
Operator :
Sample : 04-168-04c
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 28 17:08:14 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

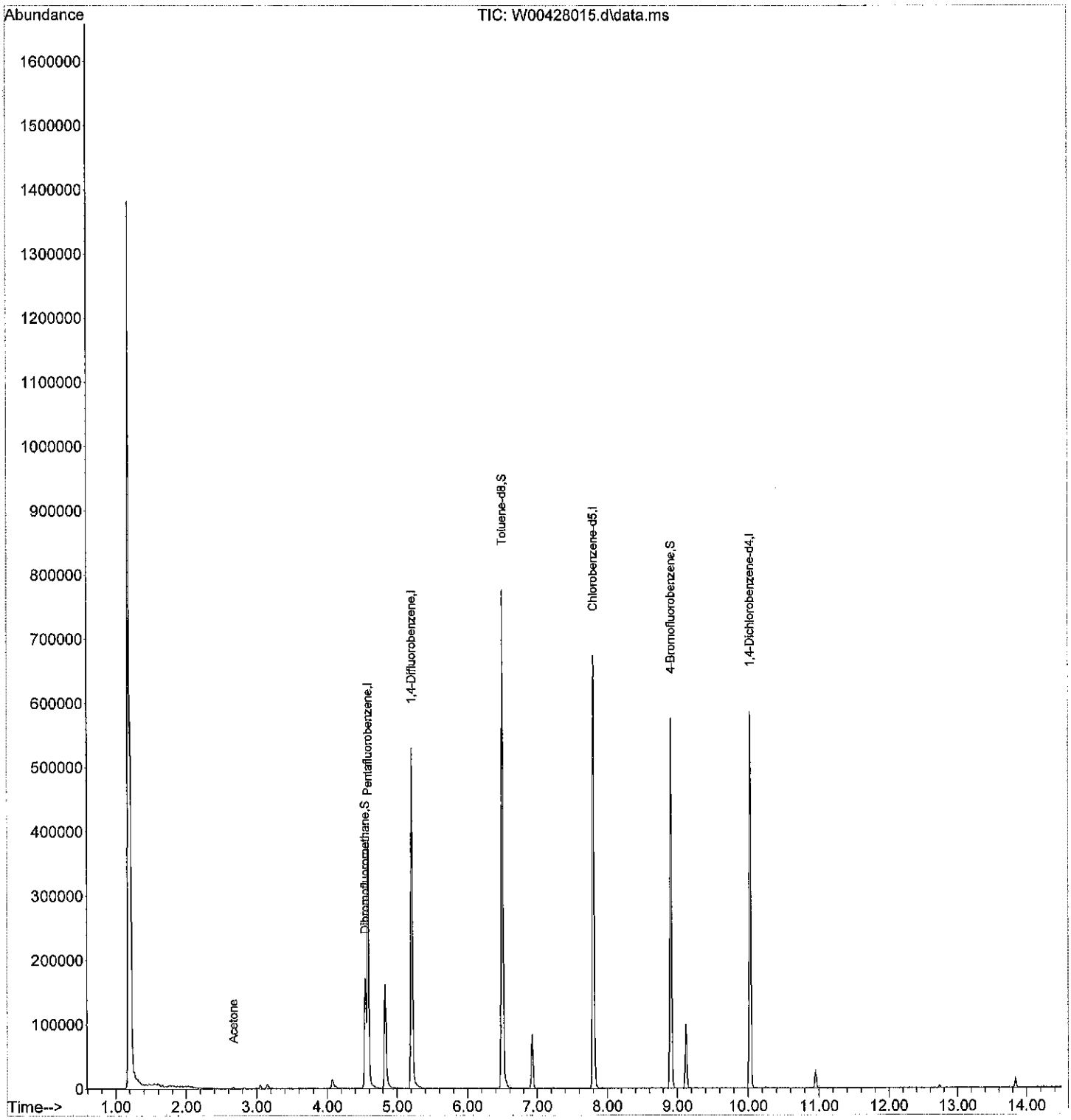
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.586	168	225247	10.00	ppb	0.00
28) 1,4-Difluorobenzene	5.208	114	384762	10.00	ppb	0.00
38) Chlorobenzene-d5	7.799	117	362762	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	10.024	152	150788	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.543	111	106909	10.58	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 105.80%			
36) Toluene-d8	6.494	98	475559	9.87	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 98.70%			
54) 4-Bromofluorobenzene	8.908	95	207787	10.61	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 106.10%			
Target Compounds						Qvalue
9) Acetone	2.672	43	1934	0.35	ppb	93

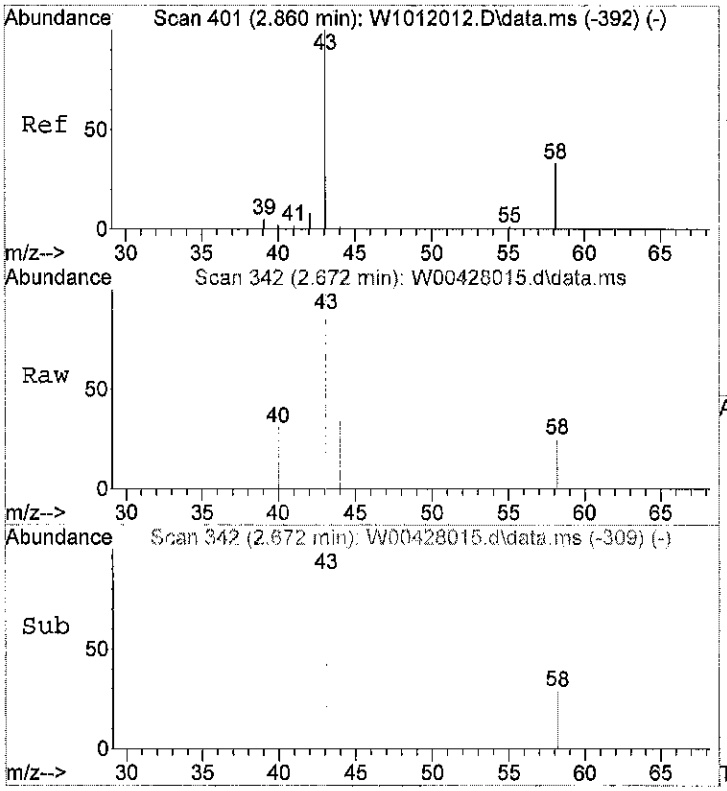
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428015.d
Acq On : 28 Apr 2014 4:52 pm
Operator :
Sample : 04-168-04c
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 28 17:08:14 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

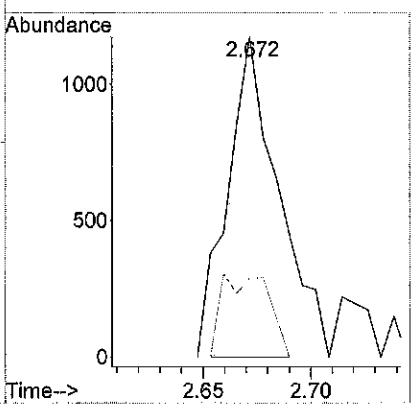




#9
Acetone
Concen: 0.35 ppb
RT: 2.672 min Scan# 342
Delta R.T. -0.000 min
Lab File: W00428015.d
Acq: 28 Apr 2014 4:52 pm

Tgt Ion: 43 Resp: 1934

Ion	Ratio	Lower	Upper
43	100		
58	23.9	22.2	33.4



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428016.d
Acq On : 28 Apr 2014 5:18 pm
Operator :
Sample : 04-168-05c
Misc :
ALS Vial : 16 Sample Multiplier: 1

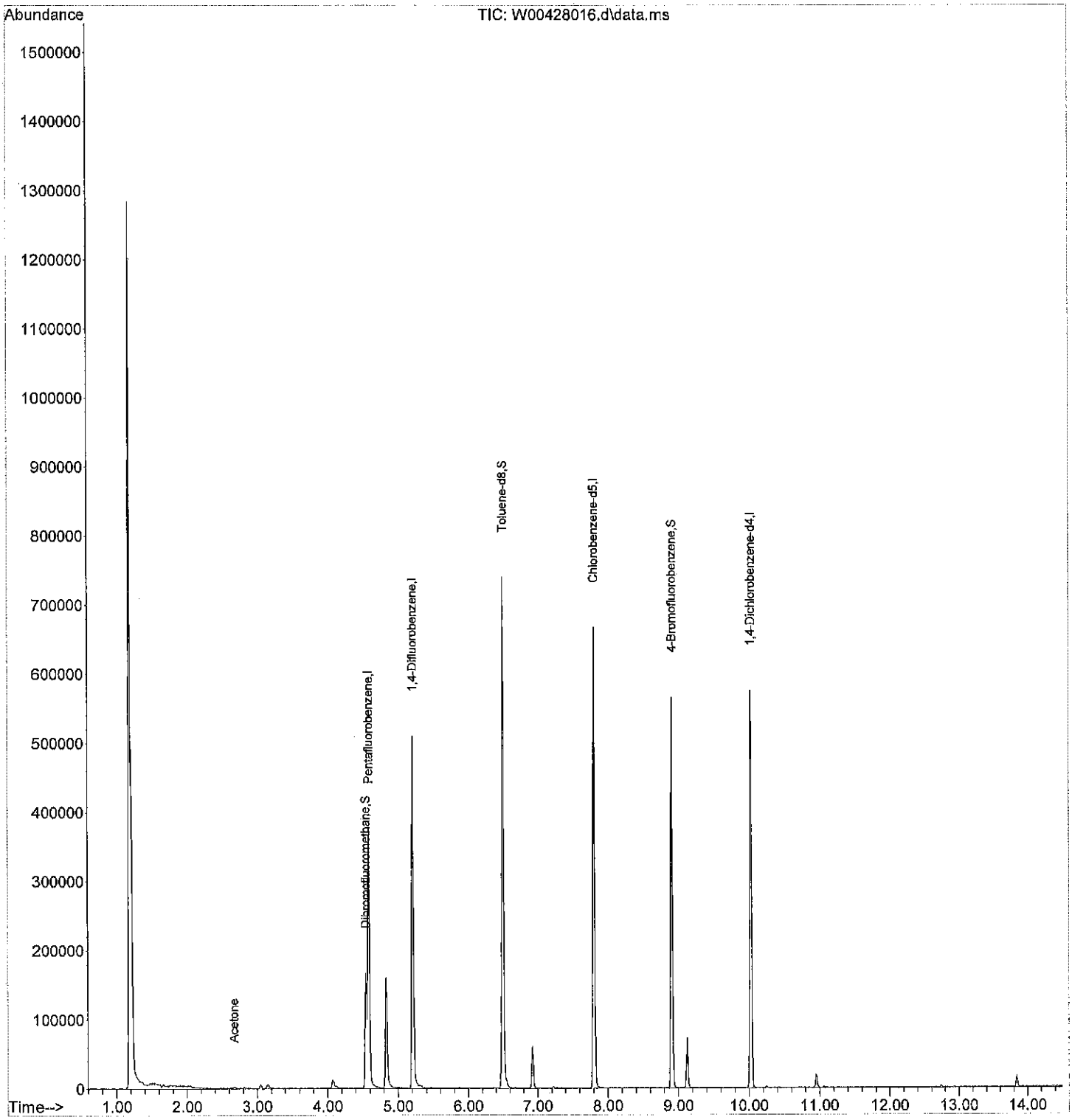
Quant Time: Apr 29 07:16:38 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

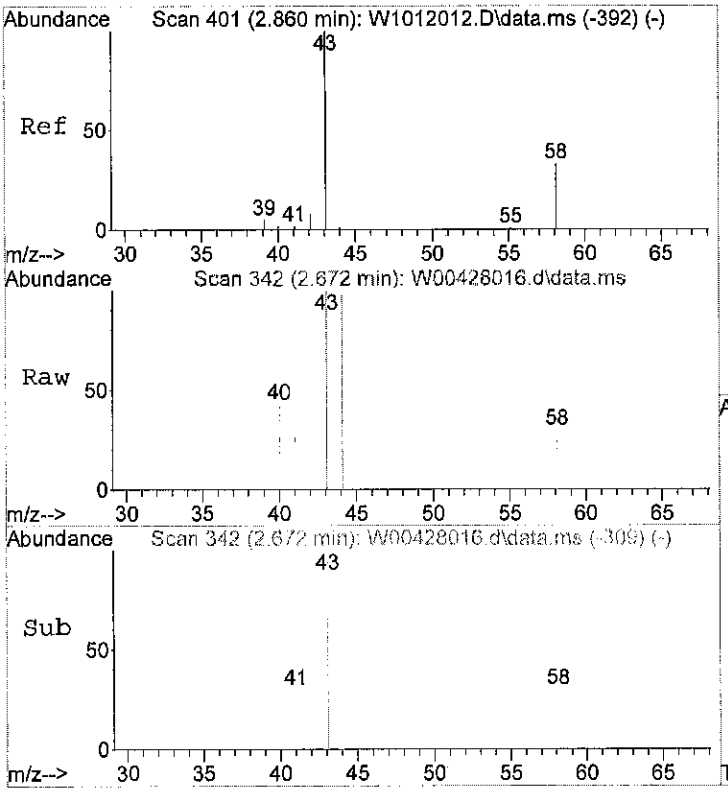
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.586	168	223085	10.00	ppb	0.00
28) 1,4-Difluorobenzene	5.208	114	372212	10.00	ppb	0.00
38) Chlorobenzene-d5	7.799	117	352171	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	10.024	152	147299	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.543	111	104518	10.44	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 104.40%			
36) Toluene-d8	6.494	98	456708	9.80	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 98.00%			
54) 4-Bromofluorobenzene	8.908	95	205873	10.83	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 108.30%			
Target Compounds						Qvalue
9) Acetone	2.672	43	2331	0.42	ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428016.d
Acq On : 28 Apr 2014 5:18 pm
Operator :
Sample : 04-168-05c
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 29 07:16:38 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

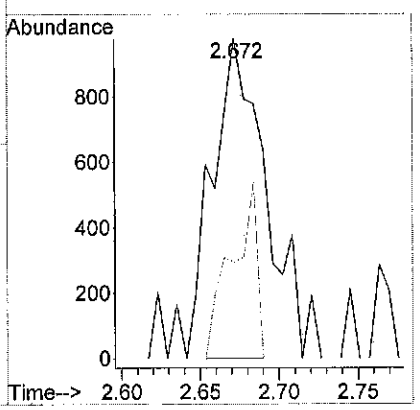




#9
Acetone
Concen: 0.42 ppb
RT: 2.672 min Scan# 342
Delta R.T. -0.000 min
Lab File: W00428016.d
Acq: 28 Apr 2014 5:18 pm

Tgt Ion: 43 Resp: 2331

Ion	Ratio	Lower	Upper
43	100		
58	26.0	22.2	33.4



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428017.d
Acq On : 28 Apr 2014 5:45 pm
Operator :
Sample : 04-168-06c
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 28 18:01:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

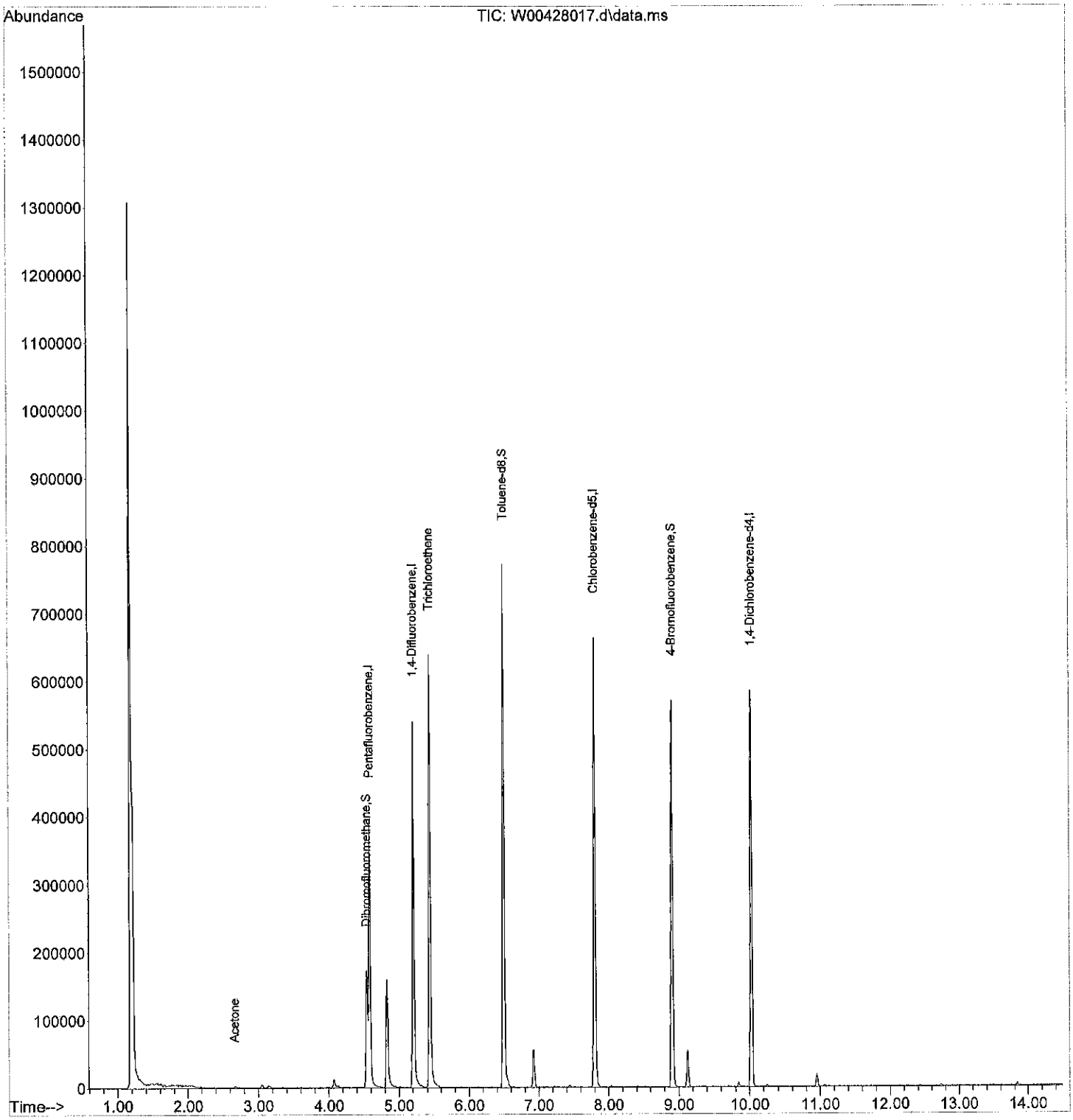
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.586	168	225967	10.00	ppb	0.00
28) 1,4-Difluorobenzene	5.208	114	379382	10.00	ppb	0.00
38) Chlorobenzene-d5	7.799	117	359993	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	10.024	152	155436	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.543	111	106271	10.48	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 104.80%			
36) Toluene-d8	6.494	98	467014	9.83	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 98.30%			
54) 4-Bromofluorobenzene	8.908	95	208275	10.71	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 107.10%			
Target Compounds						Qvalue
9) Acetone	2.666	43	3639	0.65	ppb	96
29) Trichloroethene	5.439	130	196491	9.60	ppb	99

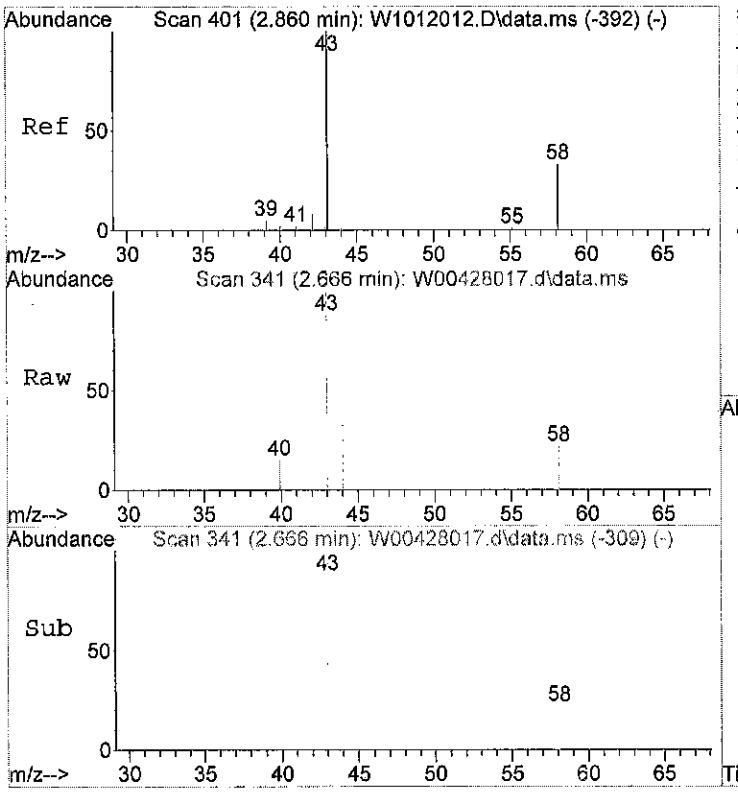
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428017.d
Acq On : 28 Apr 2014 5:45 pm
Operator :
Sample : 04-168-06c
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 28 18:01:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

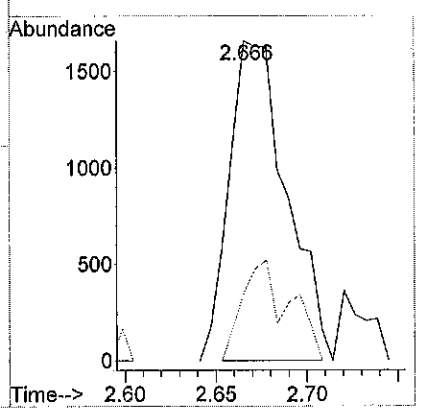


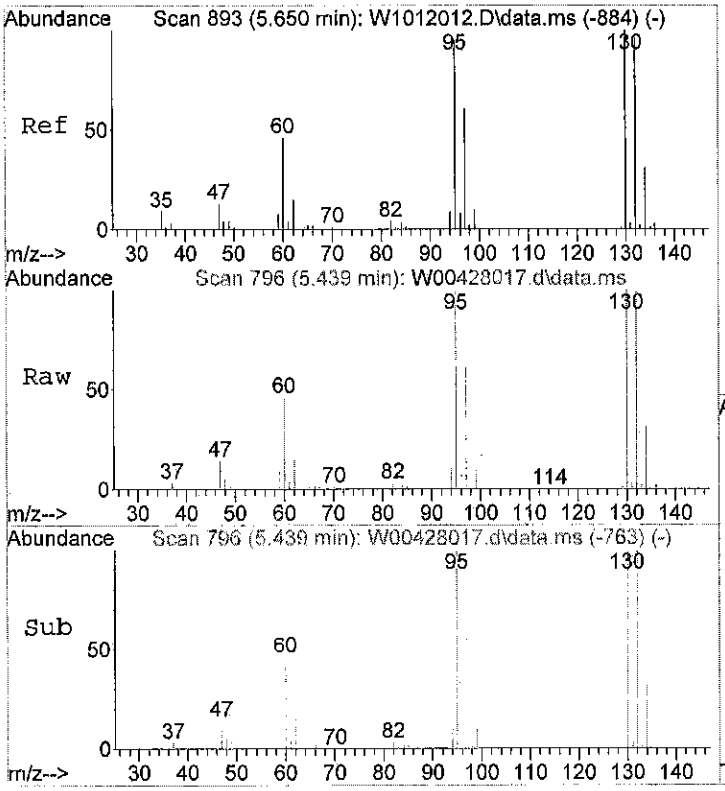


#9
Acetone
Concen: 0.65 ppb
RT: 2.666 min Scan# 341
Delta R.T. -0.006 min
Lab File: W00428017.d
Acq: 28 Apr 2014 5:45 pm

Tgt Ion: 43 Resp: 3639

Ion	Ratio	Lower	Upper
43	100		
58	25.7	22.2	33.4

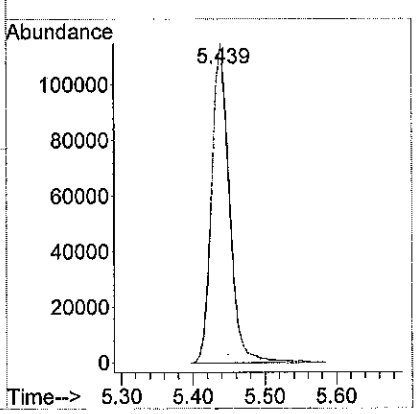




#29
Trichloroethene
Concen: 9.60 ppb
RT: 5.439 min Scan# 796
Delta R.T. -0.001 min
Lab File: W00428017.d
Acq: 28 Apr 2014 5:45 pm

Tgt Ion:130 Resp: 196491

Ion	Ratio	Lower	Upper
130	100		
132	99.6	80.7	121.1



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428018.d
Acq On : 28 Apr 2014 6:11 pm
Operator :
Sample : 04-168-07c
Misc :
ALS Vial : 18 Sample Multiplier: 1

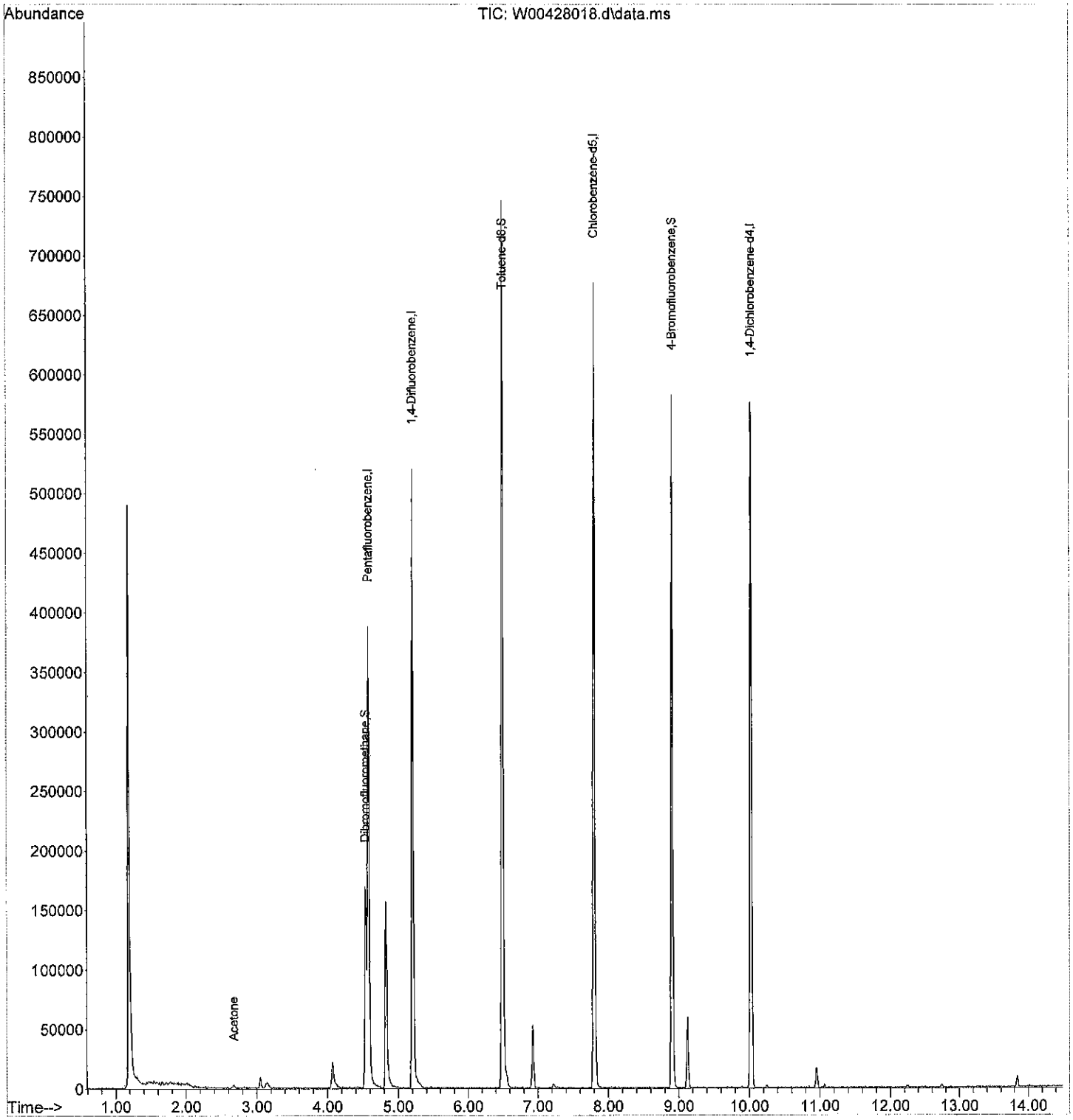
Quant Time: Apr 29 06:51:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

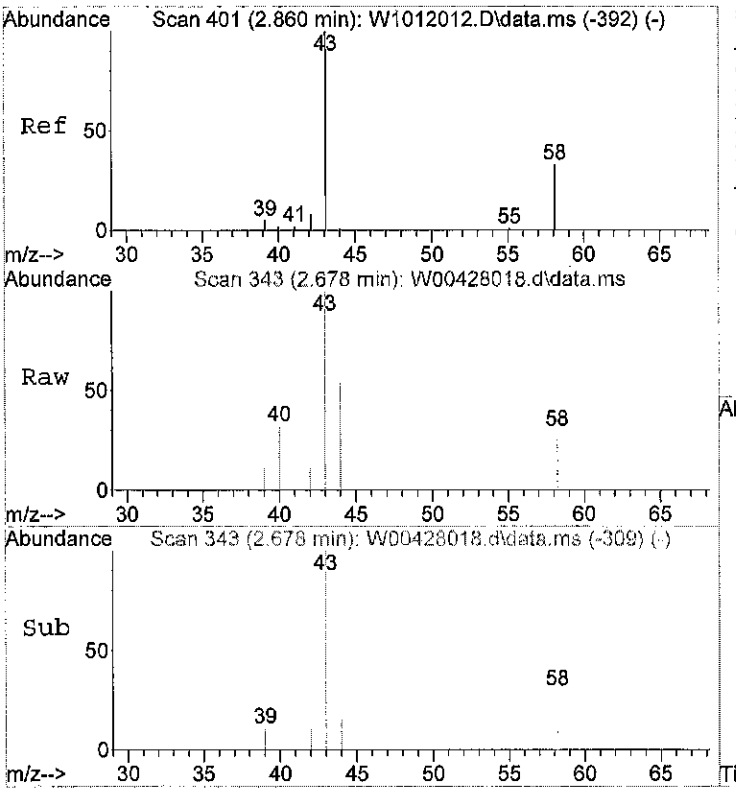
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.586	168	220765	10.00	ppb	0.00
28) 1,4-Difluorobenzene	5.208	114	376887	10.00	ppb	0.00
38) Chlorobenzene-d5	7.799	117	354542	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	10.024	152	156079	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.543	111	102732	10.37	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.70%			
36) Toluene-d8	6.494	98	450666	9.55	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 95.50%			
54) 4-Bromofluorobenzene	8.908	95	207825	10.86	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 108.60%			
Target Compounds						Qvalue
9) Acetone	2.678	43	3376	0.62	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428018.d
Acq On : 28 Apr 2014 6:11 pm
Operator :
Sample : 04-168-07c
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 29 06:51:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

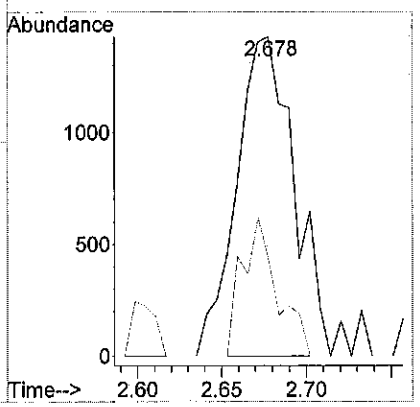




#9
Acetone
Concen: 0.62 ppb
RT: 2.678 min Scan# 343
Delta R.T. 0.006 min
Lab File: W00428018.d
Acq: 28 Apr 2014 6:11 pm

Tgt Ion: 43 Resp: 3376

Ion	Ratio	Lower	Upper
43	100		
58	26.7	22.2	33.4



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428019.d
Acq On : 28 Apr 2014 6:38 pm
Operator :
Sample : 04-168-08a
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 28 18:53:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

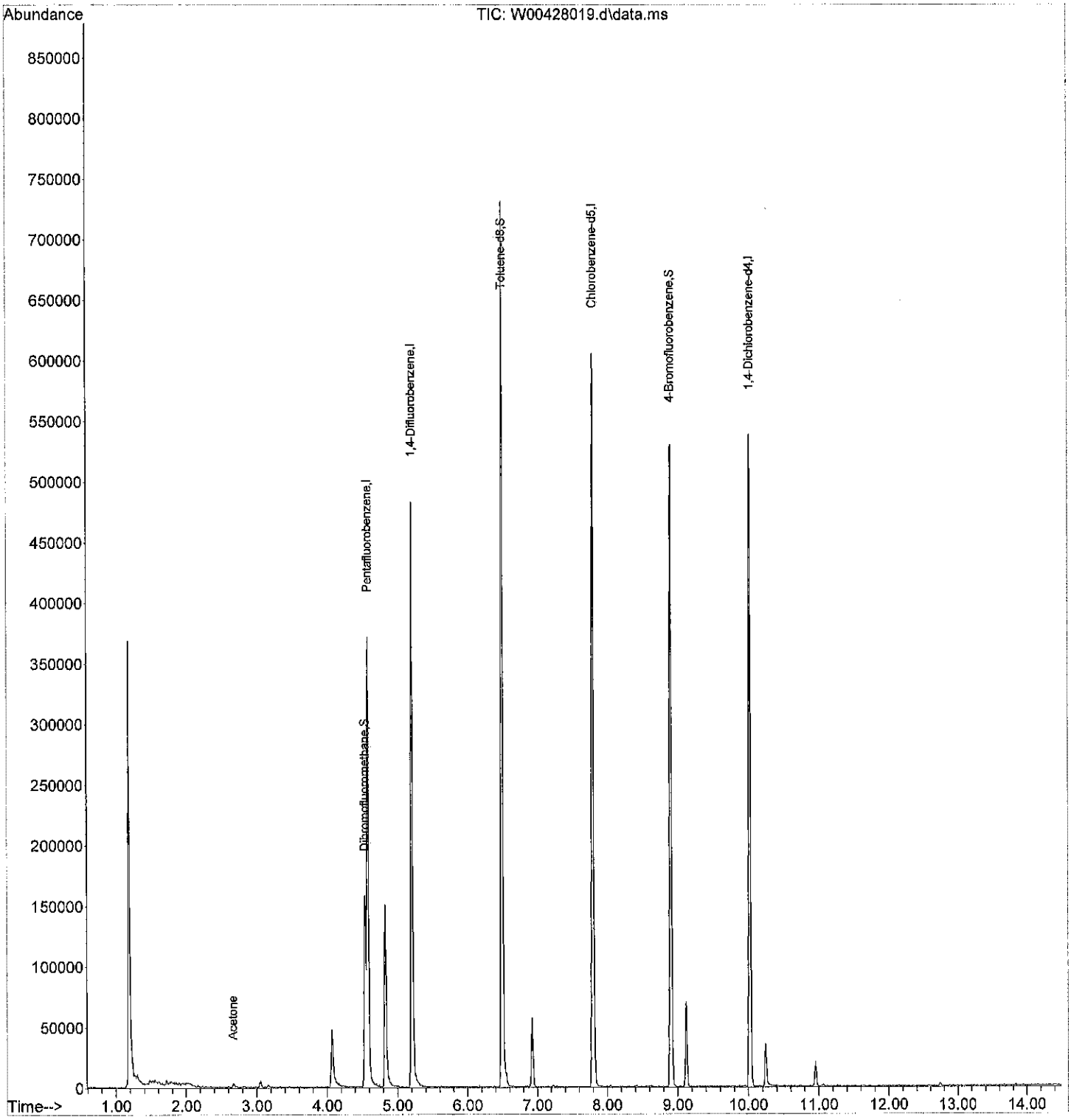
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.586	168	211103	10.00	ppb	0.00
28) 1,4-Difluorobenzene	5.208	114	355365	10.00	ppb	0.00
38) Chlorobenzene-d5	7.799	117	332218	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	10.024	152	138416	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.543	111	98019	10.35	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.50%			
36) Toluene-d8	6.494	98	446197	10.03	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.30%			
54) 4-Bromofluorobenzene	8.902	95	196826	10.97	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 109.70%			
Target Compounds						Qvalue
9) Acetone	2.666	43	4515	0.86	ppb	95

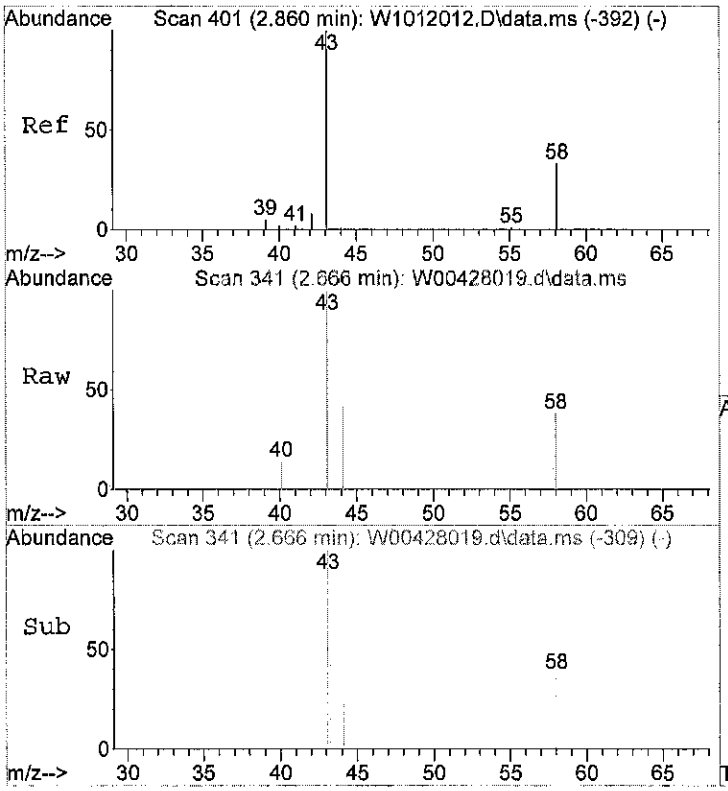
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428019.d
Acq On : 28 Apr 2014 6:38 pm
Operator :
Sample : 04-168-08a
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 28 18:53:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

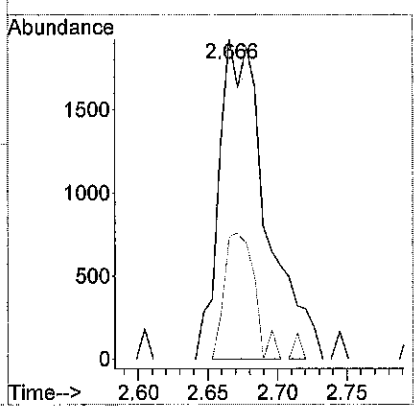




#9
Acetone
Concen: 0.86 ppb
RT: 2.666 min Scan# 341
Delta R.T. -0.006 min
Lab File: W00428019.d
Acq: 28 Apr 2014 6:38 pm

Tgt Ion: 43 Resp: 4515

Ion	Ratio	Lower	Upper
43	100		
58	25.3	22.2	33.4



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428011.d
Acq On : 28 Apr 2014 3:06 pm
Operator :
Sample : MB0428W2
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 28 15:58:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

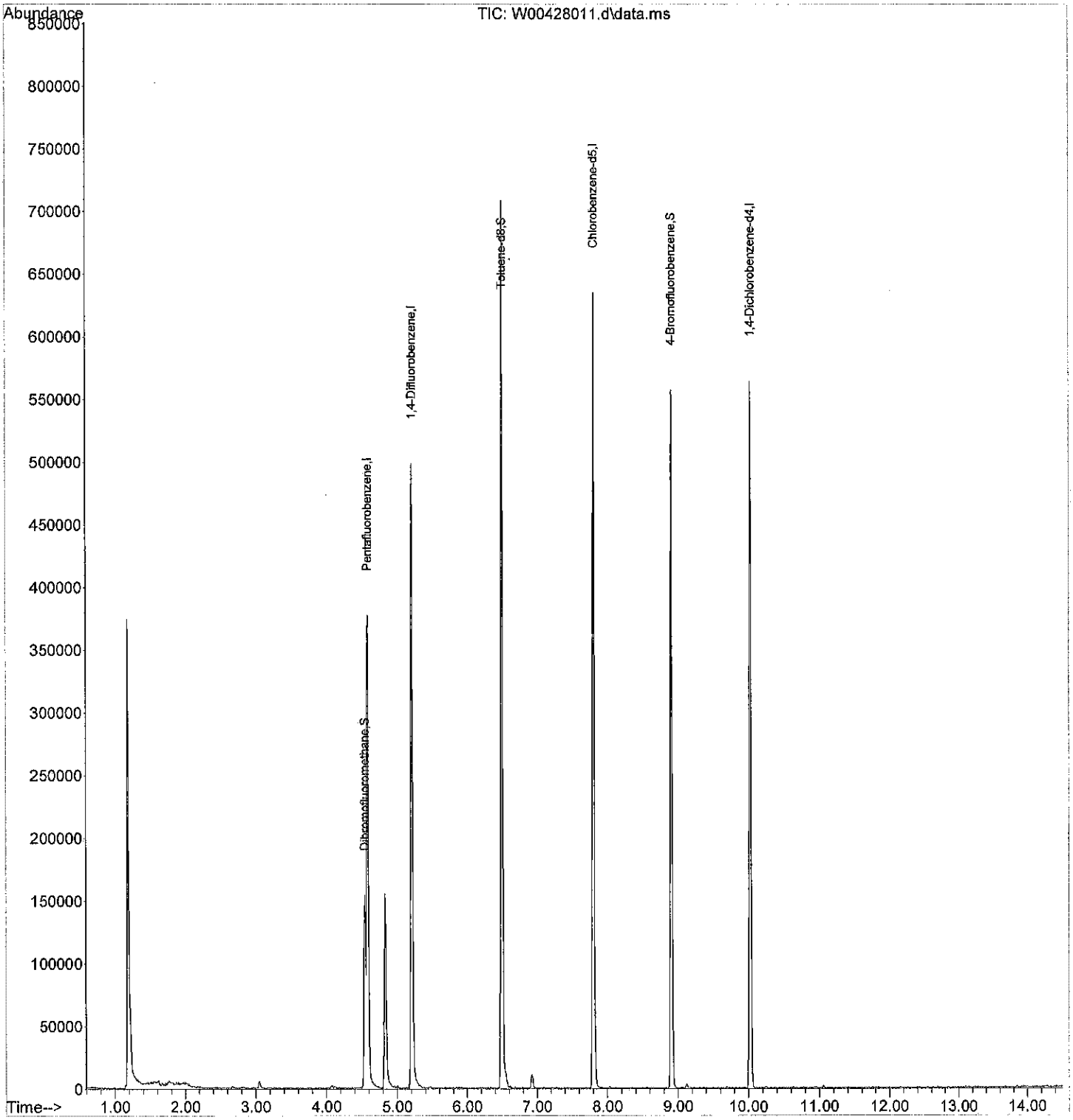
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.586	168	223512	10.00	ppb	0.00
28) 1,4-Difluorobenzene	5.208	114	366350	10.00	ppb	0.00
38) Chlorobenzene-d5	7.799	117	341488	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	10.024	152	151249	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.543	111	93575	9.33	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 93.30%			
36) Toluene-d8	6.494	98	440490	9.60	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.00%			
54) 4-Bromofluorobenzene	8.902	95	199109	10.80	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 108.00%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428011.d
Acq On : 28 Apr 2014 3:06 pm
Operator :
Sample : MB0428W2
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 28 15:58:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428009.d
Acq On : 28 Apr 2014 1:48 pm
Operator :
Sample : SB0428W2
Misc : V3-125-17
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 28 14:05:33 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

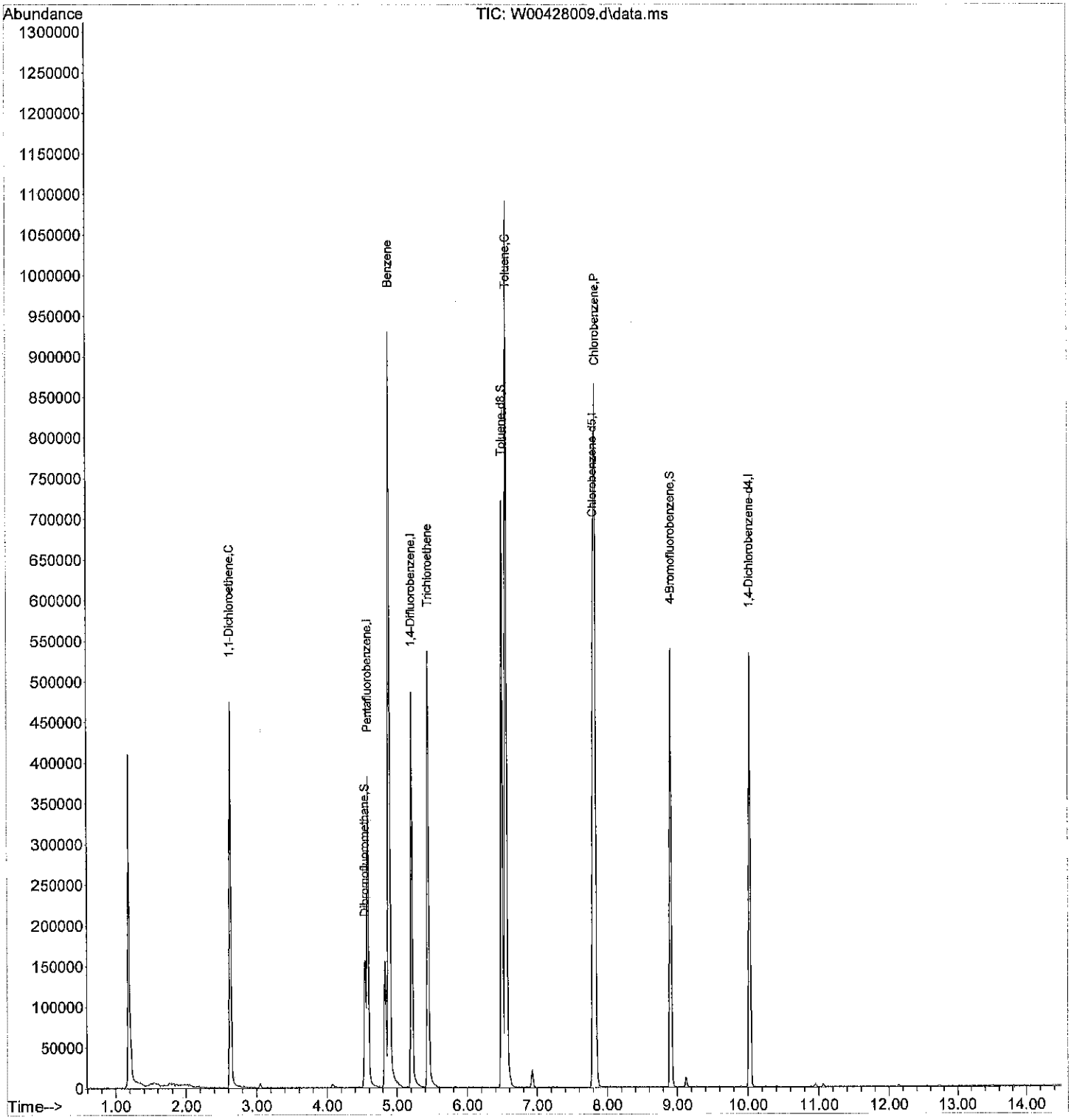
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.586	168	217647	10.00	ppb	0.00
28) 1,4-Difluorobenzene	5.208	114	360461	10.00	ppb	0.00
38) Chlorobenzene-d5	7.799	117	329235	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	10.024	152	139122	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.543	111	100955	10.34	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.40%			
36) Toluene-d8	6.494	98	439597	9.74	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 97.40%			
54) 4-Bromofluorobenzene	8.908	95	197465	11.11	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 111.10%			
Target Compounds						Qvalue
8) 1,1-Dichloroethene	2.629	61	292483	11.79	ppb	98
26) Benzene	4.891	78	710610	11.62	ppb	98
29) Trichloroethene	5.439	130	165978	8.53	ppb	100
37) Toluene	6.555	91	728937	10.96	ppb	100
46) Chlorobenzene	7.829	112	433432	10.84	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428009.d
Acq On : 28 Apr 2014 1:48 pm
Operator :
Sample : SB0428W2
Misc : V3-125-17
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 28 14:05:33 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428010.d
Acq On : 28 Apr 2014 2:14 pm
Operator :
Sample : SBD0428W2
Misc : V3-125-17
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 29 07:17:40 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

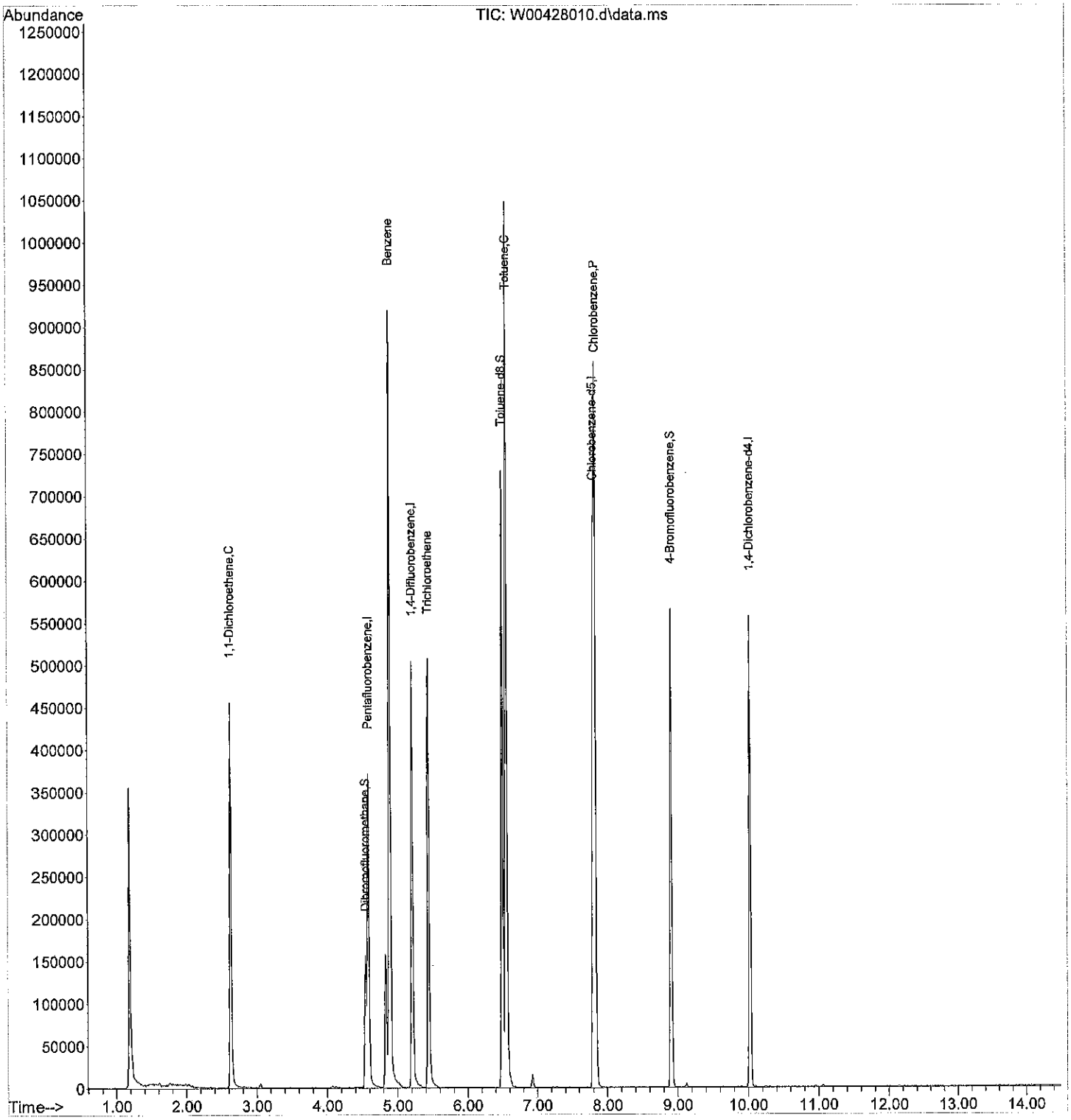
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.586	168	223009	10.00	ppb	0.00
28) 1,4-Difluorobenzene	5.208	114	368300	10.00	ppb	0.00
38) Chlorobenzene-d5	7.799	117	340799	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	10.024	152	142852	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.543	111	98119	9.81	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 98.10%			
36) Toluene-d8	6.494	98	451585	9.79	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 97.90%			
54) 4-Bromofluorobenzene	8.908	95	203465	11.06	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 110.60%			
Target Compounds						Qvalue
8) 1,1-Dichloroethene	2.629	61	286465	11.27	ppb	99
26) Benzene	4.891	78	684033	10.91	ppb	99
29) Trichloroethene	5.440	130	159108	8.00	ppb	99
37) Toluene	6.555	91	711412	10.47	ppb	98
46) Chlorobenzene	7.829	112	423460	10.23	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428010.d
Acq On : 28 Apr 2014 2:14 pm
Operator :
Sample : SBD0428W2
Misc : V3-125-17
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 29 07:17:40 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration



Compound List Report Waldo

Method Path : C:\msdchem\1\methods\
Method File : W140319W.M
Title :
Last Update : Wed Mar 19 15:16:40 2014
Response Via : Initial Calibration

Total Cpnds : 75

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene	168	4.586	1.000	A	0	A	B
2		Dichlorodifluoromethane	85	1.325	0.289	A	1	A	B
3	P	Chloromethane	50	1.477	0.322	A	1	A	B
4	C	Vinyl Chloride	62	1.568	0.342	A	1	A	B
5		Bromomethane	96	1.843	0.402	A	1	A	B
6		Chloroethane	64	1.934	0.422	A	1	A	B
7		Trichlorofluoromethane	101	2.172	0.474	A	1	A	B
8	C	1,1-Dichloroethene	61	2.629	0.573	A	1	A	B
9		Acetone	43	2.672	0.583	A	1	A	B
10		Iodomethane	142	2.757	0.601	A	1	A	B
11		Carbon Disulfide	76	2.824	0.616	A	1	A	B
12		Methylene Chloride	49	3.050	0.665	A	1	A	B
13		(trans) 1,2-Dichloroethene	61	3.294	0.718	A	1	A	B
14		Methyl t-Butyl Ether	73	3.300	0.720	A	3	A	B
15	P	1,1-Dichloroethane	63	3.653	0.797	A	1	A	B
16		Vinyl Acetate	43	3.696	0.806	L	1	A	B
17		2,2-Dichloropropane	77	4.147	0.904	A	1	A	B
18		(cis) 1,2-Dichloroethene	61	4.147	0.904	A	1	A	B
19		2-Butanone	43	4.153	0.906	A	1	A	B
20		Bromochloromethane	130	4.348	0.948	A	3	A	B
21	C	Chloroform	83	4.409	0.961	A	1	A	B
22		1,1,1-Trichloroethane	97	4.580	0.999	A	1	A	B
23	S	Dibromofluoromethane	111	4.543	0.991	A	1	A	B
24		Carbon Tetrachloride	117	4.720	1.029	A	1	A	B
25		1,1-Dichloropropene	75	4.720	1.029	A	1	A	B
26		Benzene	78	4.891	1.067	A	1	A	B
27		1,2-Dichloroethane	62	4.897	1.068	A	1	A	B
28	I	1,4-Difluorobenzene	114	5.208	1.000	A	0	A	B
29		Trichloroethene	130	5.440	1.045	A	1	A	B
30	C	1,2-Dichloropropane	63	5.622	1.079	A	1	A	B
31		Dibromomethane	174	5.726	1.099	A	2	A	B
32		Bromodichloromethane	83	5.854	1.124	A	1	A	B
33		2-Chloroethyl Vinyl Ether	63	6.116	1.174	A	1	A	B
34		(cis) 1,3-Dichloropropene	75	6.250	1.200	A	1	A	B
35		Methyl Isobutyl Ketone	43	6.384	1.226	A	3	A	B
36	S	Toluene-d8	98	6.494	1.247	A	1	A	B
37	C	Toluene	91	6.555	1.259	A	1	A	B
38	I	Chlorobenzene-d5	117	7.799	1.000	A	1	A	B
39		(trans) 1,3-Dichloropropene	75	6.738	0.864	A	1	A	B
40		1,1,2-Trichloroethane	97	6.903	0.885	A	1	A	B
41		Tetrachloroethene	166	7.049	0.904	A	2	A	B
42		1,3-Dichloropropane	76	7.055	0.905	A	1	A	B
43		2-Hexanone	43	7.128	0.914	A	3	A	B
44		Dibromochloromethane	129	7.262	0.931	A	2	A	B
45		1,2-Dibromoethane	107	7.372	0.945	A	1	A	B
46	P	Chlorobenzene	112	7.829	1.004	A	1	A	B
47		1,1,1,2-Tetrachloroethane	133	7.902	1.013	A	2	A	B
48	C	Ethylbenzene	91	7.933	1.017	A	1	A	B
49		m,p-Xylene	91	8.043	1.031	A	1	A	B
50		o-Xylene	91	8.415	1.079	A	1	A	B
51		Styrene	104	8.427	1.081	A	0	A	B
52	P	Bromoform	173	8.591	1.102	A	2	A	B
53		Isopropylbenzene	105	8.768	1.124	A	1	A	B
54	S	4-Bromofluorobenzene	95	8.908	1.142	A	2	A	B

55 I	1,4-Dichlorobenzene-d4	152	10.024	1.000	A	1	A	B
56	Bromobenzene	156	9.055	0.903	A	1	A	B
57 P	1,1,2,2-Tetrachloroethane	83	9.030	0.901	A	1	A	B
58	1,2,3-Trichloropropane	75	9.073	0.905	A	1	A	B
59	n-Propylbenzene	91	9.158	0.914	A	1	A	B
60	2-Chlorotoluene	126	9.244	0.922	A	1	A	B
61	4-Chlorotoluene	126	9.347	0.932	A	1	A	B
62	1,3,5-Trimethylbenzene	105	9.329	0.931	A	1	A	B
63	tert-Butylbenzene	119	9.646	0.962	A	1	A	B
64	1,2,4-Trimethylbenzene	105	9.695	0.967	A	1	A	B
65	sec-Butylbenzene	105	9.866	0.984	A	1	A	B
66	1,3-Dichlorobenzene	146	9.963	0.994	A	1	A	B
67	p-Isopropyltoluene	119	10.006	0.998	A	1	A	B
68	1,4-Dichlorobenzene	146	10.048	1.002	A	1	A	B
69	1,2-Dichlorobenzene	146	10.414	1.039	A	1	A	B
70	n-Butylbenzene	91	10.408	1.038	A	1	A	B
71	1,2-Dibromo-3-chloropropane	157	11.170	1.114	A	2	A	B
72	1,2,4-Trichlorobenzene	180	12.005	1.198	A	2	A	B
73	Hexachlorobutadiene	225	12.188	1.216	A	2	A	B
74	Naphthalene	128	12.243	1.221	A	1	A	B
75	1,2,3-Trichlorobenzene	180	12.487	1.246	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

W140319W.M Wed Mar 19 16:00:09 2014

Response Factor Report Waldo

Method Path : C:\msdchem\1\methods\
Method File : W140319W.M
Title :
Last Update : Wed Mar 19 15:16:40 2014
Response Via : Initial Calibration

Calibration Files
.2 =W00319007.d 1 =W00319008.d 2 =W00319009.d 5 =W00319010.d 10 =W00319011.d 25 =W00319012.d
50 =W00319014.d .1 =W1019008.d

		Compound	.2	1	2	5	10	25	50	.1	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------									
2)		Dichlorodifluo...	0.758	0.713	0.748	0.761	0.709	0.771	0.775		0.748	3.59
3)	P	Chloromethane	1.369	1.344	1.353	1.216	1.235	1.154	1.288		1.280	6.34
4)	C	Vinyl Chloride	0.956	0.943	0.955	0.957	0.874	0.953	0.956		0.942	3.21
5)		Bromomethane	0.460	0.348	0.359	0.326	0.307	0.326	0.363		0.355	14.10
6)		Chloroethane	0.565	0.504	0.489	0.492	0.442	0.475	0.483		0.493	7.58
7)		Trichlorofluor...	1.054	1.008	1.045	1.068	0.973	1.009	1.027		1.026	3.14
8)	C	1,1-Dichloroet...	1.257	1.121	1.142	1.147	1.059	1.133	1.120		1.140	5.22
9)		Acetone		0.298	0.265	0.259	0.213	0.217	0.239		0.248	12.84
10)		Iodomethane	0.715	0.612	0.624	0.700	0.664	0.775	0.782		0.696	9.69
11)		Carbon Disulfide	2.232	1.786	1.761	1.775	1.596	1.732	1.708		1.799	11.20
12)		Methylene Chlo...	1.334	1.186	1.193	1.190	1.092	1.156	1.169		1.189	6.15
13)		(trans) 1,2-Di...	1.177	1.116	1.101	1.140	1.047	1.111	1.109		1.114	3.52
14)		Methyl t-Butyl...	2.035	2.017	2.046	2.086	1.906	2.015	1.994		2.014	2.77
15)	P	1,1-Dichloroet...	1.351	1.353	1.367	1.388	1.277	1.345	1.363		1.349	2.56
16)		Vinyl Acetate	1.333	1.120	0.929	0.913	0.713	0.767			0.963	23.96
17)		2,2-Dichloropr...	1.075	1.065	1.037	1.076	0.937	0.979	0.932		1.014	6.33
18)		(cis) 1,2-Dich...	1.337	1.280	1.278	1.335	1.212	1.282	1.262		1.284	3.35
19)		2-Butanone		0.323	0.331	0.404	0.410	0.426	0.471		0.394	14.50
20)		Bromochloromet...	0.368	0.369	0.370	0.373	0.340	0.351	0.353		0.361	3.41
21)	C	Chloroform	1.166	1.090	1.123	1.128	1.049	1.097	1.104		1.108	3.30
22)		1,1,1-Trichlor...	1.097	1.036	1.057	1.097	0.996	1.065	1.043		1.056	3.36
23)	S	Dibromofluorom...	0.456	0.459	0.443	0.447	0.436	0.451	0.448		0.449	1.79
24)		Carbon Tetrach...	0.973	0.919	0.942	0.942	0.859	0.901	0.897		0.919	4.07
25)		1,1-Dichloropr...	1.033	0.984	1.006	0.983	0.908	0.959	0.951		0.975	4.15
26)		Benzene	2.936	2.807	2.868	2.917	2.630	2.767	2.749		2.811	3.81
27)		1,2-Dichloroet...	0.929	0.898	0.883	0.918	0.856	0.892	0.886		0.895	2.68
28)	I	1,4-Difluorobenzene	----------ISTD----------									
29)		Trichloroethene	0.528	0.538	0.545	0.554	0.521	0.531	0.560		0.540	2.65
30)	C	1,2-Dichloropr...	0.520	0.513	0.500	0.508	0.477	0.483	0.482		0.498	3.43
31)		Dibromomethane	0.238	0.214	0.222	0.223	0.208	0.212	0.217		0.219	4.50
32)		Bromodichlorom...	0.514	0.523	0.529	0.526	0.495	0.517	0.521		0.518	2.19
33)		2-Chloroethyl ...	0.259	0.277	0.314	0.308	0.292	0.297	0.309		0.294	6.79
34)		(cis) 1,3-Dich...	0.708	0.722	0.710	0.709	0.664	0.686	0.689		0.698	2.81
35)		Methyl Isobuty...	0.761	0.646	0.649	0.674	0.649	0.649	0.692		0.674	6.22
36)	S	Toluene-d8	1.263	1.241	1.258	1.273	1.216	1.238	1.278		1.252	1.75
37)	C	Toluene	2.075	1.809	1.865	1.877	1.719	1.781	1.790		1.845	6.21

Response Factor Report Waldo

Method Path : C:\msdchem\1\methods\
Method File : W140319W.M
Title :

38)	I	Chlorobenzene-d5	----------ISTD----------								
39)		(trans) 1,3-Di...	0.666	0.703	0.714	0.710	0.664	0.692	0.679	0.690	3.00
40)		1,1,2-Trichlor...	0.495	0.407	0.405	0.410	0.389	0.388	0.391	0.412	9.14
41)		Tetrachloroethene	0.526	0.527	0.528	0.569	0.500	0.532	0.520	0.529	3.89
42)		1,3-Dichloropr...	0.742	0.725	0.744	0.734	0.687	0.701	0.699	0.719	3.19
43)		2-Hexanone	0.664	0.583	0.600	0.625	0.600	0.603	0.630	0.615	4.34
44)		Dibromochlorom...	0.421	0.423	0.437	0.459	0.419	0.438	0.441	0.434	3.25
45)		1,2-Dibromoethane	0.375	0.373	0.388	0.378	0.361	0.373	0.372	0.374	2.16
46)	P	Chlorobenzene	1.203	1.213	1.222	1.281	1.174	1.215	1.194	1.215	2.75
47)		1,1,1,2-Tetrac...	0.485	0.429	0.448	0.466	0.436	0.444	0.437	0.449	4.39
48)	C	Ethylbenzene	2.447	2.406	2.447	2.468	2.270	2.365	2.321	2.389	3.09
49)		m,p-Xylene	1.894	1.755	1.804	1.858	1.710	1.753	1.703	1.782	4.09
50)		o-Xylene	1.975	1.770	1.827	1.829	1.674	1.722	1.645	1.778	6.30
51)		Styrene	1.554	1.490	1.562	1.571	1.454	1.493	1.451	1.511	3.39
52)	P	Bromoform	0.271	0.292	0.307	0.316	0.299	0.305	0.310	0.300	4.99
53)		Isopropylbenzene	1.940	1.992	1.997	2.048	1.879	1.963	1.902	1.960	2.98
54)	S	4-Bromofluorob...	0.537	0.544	0.542	0.555	0.533	0.534	0.535	0.540	1.46
55)	I	1,4-Dichlorobenzen...	----------ISTD----------								
56)		Bromobenzene	1.283	1.199	1.248	1.238	1.166	1.213	1.197	1.221	3.17
57)	P	1,1,2,2-Tetrac...	1.063	0.906	0.960	0.906	0.845	0.889	0.802	0.910	9.22
58)		1,2,3-Trichlor...	1.253	1.199	1.144	1.132	1.095	1.104	1.116	1.149	4.97
59)		n-Propylbenzene	5.425	5.196	5.369	5.370	4.976	5.278	5.213	5.261	2.89
60)		2-Chlorotoluene	1.023	1.080	1.114	1.109	1.059	1.085	1.082	1.079	2.85
61)		4-Chlorotoluene	1.152	1.092	1.178	1.139	1.052	1.117	1.088	1.117	3.86
62)		1,3,5-Trimethy...	4.113	3.973	4.036	3.986	3.707	3.885	3.790	3.927	3.62
63)		tert-Butylbenzene	2.740	2.721	2.815	2.798	2.589	2.742	2.648	2.722	2.95
64)		1,2,4-Trimethy...	4.151	3.898	4.203	4.065	3.834	3.999	3.889	4.006	3.51
65)		sec-Butylbenzene	3.585	3.488	3.598	3.560	3.327	3.540	3.463	3.509	2.67
66)		1,3-Dichlorobe...	2.269	2.104	2.132	2.080	1.950	2.065	2.011	2.087	4.81
67)		p-Isopropyltol...	2.841	2.738	2.940	2.807	2.696	2.840	2.788	2.807	2.81
68)		1,4-Dichlorobe...	2.314	2.229	2.380	2.282	2.184	2.265	2.225	2.269	2.87
69)		1,2-Dichlorobe...	1.896	1.982	2.046	2.004	1.914	1.978	1.929	1.964	2.72
70)		n-Butylbenzene	2.704	2.290	2.324	2.305	2.180	2.302	2.236	2.334	7.30
71)		1,2-Dibromo-3-...	0.264	0.239	0.245	0.244	0.250	0.256	0.267	0.252	4.29
72)		1,2,4-Trichlor...	1.200	0.897	1.016	0.957	0.953	1.011	0.962	0.999	9.70
73)		Hexachlorobuta...	0.161	0.167	0.175	0.176	0.164	0.171	0.157	0.167	4.17
74)		Naphthalene	3.544	3.309	3.343	3.386	3.294	3.503	3.386	3.395	2.80
75)		1,2,3-Trichlor...	1.171	0.932	0.923	0.928	0.885	0.976	0.920	0.962	9.98

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319007.d
Acq On : 19 Mar 2014 11:43 am
Operator :
Sample : 0.2 PPB ICAL
Misc : V3-124-10
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 13:19:44 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.586	168	266527	10.00	ppb		0.00
28) 1,4-Difluorobenzene	5.208	114	432800	10.00	ppb		0.00
38) Chlorobenzene-d5	7.799	117	354611	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	10.030	152	144601	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.550	111	121558	9.19	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 91.90%				
36) Toluene-d8	6.494	98	546485	9.85	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 98.50%				
54) 4-Bromofluorobenzene	8.908	95	190546	9.84	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.331	85	4040	0.40	ppb		98
3) Chloromethane	1.477	50	7300	0.20	ppb		97
4) Vinyl Chloride	1.568	62	5098	0.21	ppb		94
5) Bromomethane	1.849	96	2450	1.69	ppb		90
6) Chloroethane	1.934	64	3011	0.22	ppb		92
7) Trichlorofluoromethane	2.172	101	5617	0.20	ppb		97
8) 1,1-Dichloroethene	2.629	61	6702	0.21	ppb		98
9) ~~Acetone~~	2.678	43	3985	2.12	ppb	#	83
10) Iodomethane	2.757	142	3811	0.80	ppb		91
11) Carbon Disulfide	2.824	76	11897	0.26	ppb		98
12) Methylene Chloride	3.050	49	7113	0.21	ppb		99
13) (trans) 1,2-Dichloroet...	3.300	61	6272	0.20	ppb		99
14) Methyl t-Butyl Ether	3.294	73	10847	0.19	ppb	#	83
15) 1,1-Dichloroethane	3.647	63	7199	0.19	ppb		93
16) Vinyl Acetate	3.708	43	7106	0.30	ppb	#	85
17) 2,2-Dichloropropane	4.147	77	5731	0.20	ppb		99
18) (cis) 1,2-Dichloroethene	4.147	61	7126	0.19	ppb	#	87
20) Bromochloromethane	4.354	130	1963	0.19	ppb		94
21) Chloroform	4.409	83	6218	0.19	ppb		98
22) 1,1,1-Trichloroethane	4.574	97	5848	0.19	ppb	#	1
24) Carbon Tetrachloride	4.720	117	5186	0.20	ppb		92
25) 1,1-Dichloropropene	4.714	75	5508	0.20	ppb		100
26) Benzene	4.891	78	15650	0.20	ppb		100
27) 1,2-Dichloroethane	4.891	62	4952	0.20	ppb		91
29) Trichloroethene	5.440	130	4573	0.20	ppb		93
30) 1,2-Dichloropropane	5.622	63	4502	0.21	ppb		94
31) Dibromomethane	5.732	174	2064	0.21	ppb	#	74
32) Bromodichloromethane	5.860	83	4450	0.19	ppb		97
33) 2-Chloroethyl Vinyl Ether	6.128	63	2240	0.20	ppb		97
34) (cis) 1,3-Dichloropropene	6.250	75	6127	0.20	ppb		99
35) Methyl Isobutyl Ketone	6.385	43	6586	0.23	ppb	#	96
37) Toluene	6.555	91	17964	0.22	ppb		94
39) (trans) 1,3-Dichloropr...	6.738	75	4723	0.19	ppb		96
40) 1,1,2-Trichloroethane	6.903	97	3511	0.17	ppb		86
41) Tetrachloroethene	7.055	166	3734	0.19	ppb		91
42) 1,3-Dichloropropane	7.049	76	5260	0.20	ppb		98
43) 2-Hexanone	7.128	43	4708	0.21	ppb	#	89

SP 3/19/14

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319007.d
Acq On : 19 Mar 2014 11:43 am
Operator :
Sample : 0.2 PPB ICAL
Misc : V3-124-10
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 13:19:44 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration

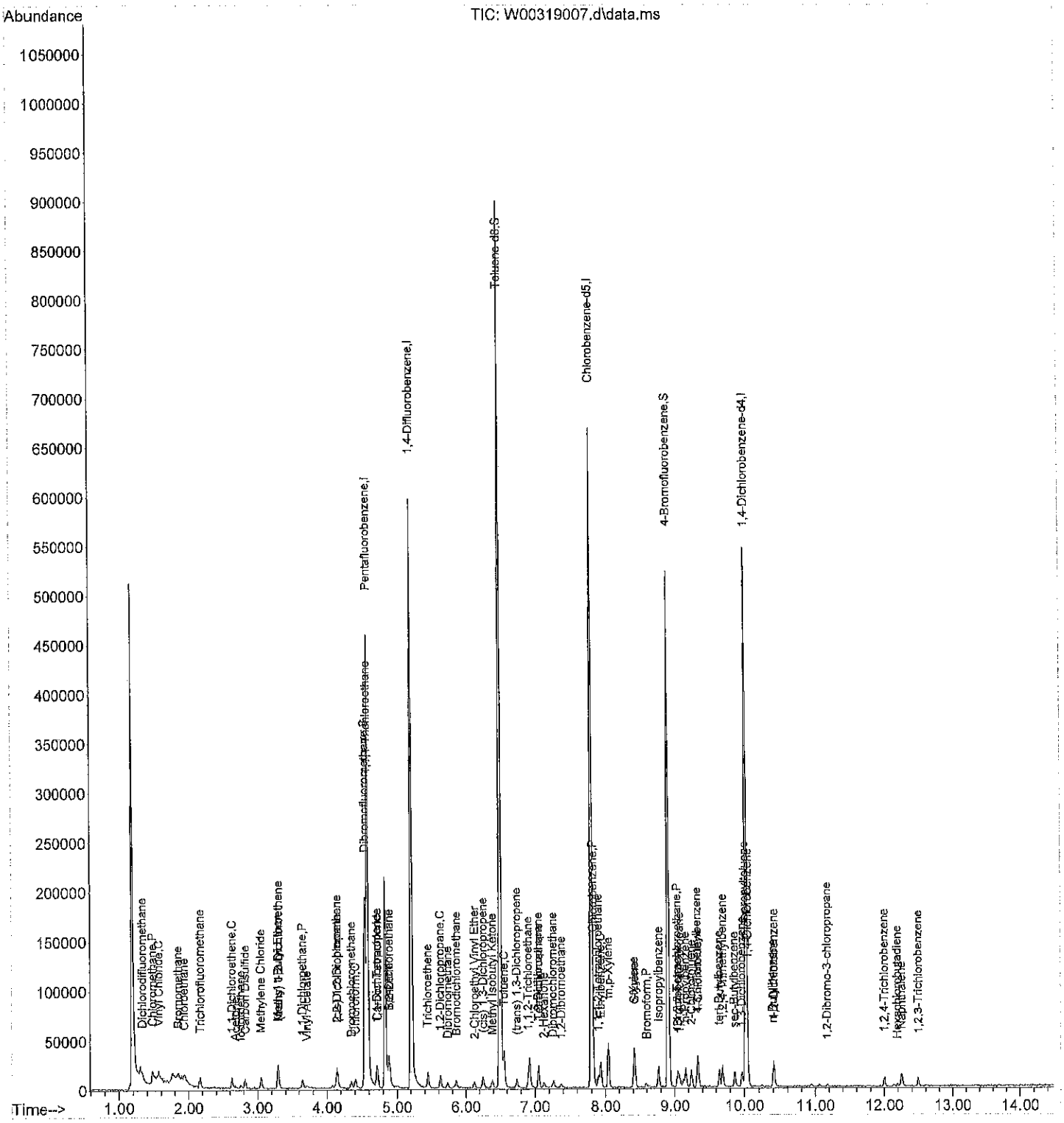
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) Dibromochloromethane	7.256	129	2986	0.18	ppb		92
45) 1,2-Dibromoethane	7.372	107	2662	0.20	ppb		88
46) Chlorobenzene	7.823	112	8529	0.19	ppb		89
47) 1,1,1,2-Tetrachloroethane	7.896	133	3439	0.21	ppb		99
48) Ethylbenzene	7.933	91	17355	0.20	ppb		94
49) m,p-Xylene	8.043	91	26861	0.42	ppb		99
50) o-Xylene	8.415	91	14005	0.22	ppb		94
51) Styrene	8.421	104	11019	0.20	ppb		100
52) Bromoform	8.597	173	1921	0.17	ppb		93
53) Isopropylbenzene	8.768	105	13762	0.19	ppb		99
56) Bromobenzene	9.049	156	3710	0.20	ppb		93
57) 1,1,2,2-Tetrachloroethane	9.036	83	3074	0.21	ppb		85
58) 1,2,3-Trichloropropane	9.073	75	3623	0.21	ppb	#	100
59) n-Propylbenzene	9.158	91	15689	0.20	ppb		96
60) 2-Chlorotoluene	9.244	126	2959	0.18	ppb		95
61) 4-Chlorotoluene	9.341	126	3332	0.20	ppb		97
62) 1,3,5-Trimethylbenzene	9.329	105	11894	0.20	ppb		96
63) tert-Butylbenzene	9.646	119	7925	0.20	ppb		98
64) 1,2,4-Trimethylbenzene	9.695	105	12006	0.20	ppb		97
65) sec-Butylbenzene	9.859	105	10368	0.20	ppb		98
66) 1,3-Dichlorobenzene	9.963	146	6561	0.22	ppb		99
67) p-Isopropyltoluene	10.006	119	8215	0.20	ppb		99
68) 1,4-Dichlorobenzene	10.048	146	6692m	0.20	ppb		
69) 1,2-Dichlorobenzene	10.414	146	5484	0.18	ppb		85
70) n-Butylbenzene	10.402	91	7820	0.24	ppb		97
71) 1,2-Dibromo-3-chloropr...	11.170	157	764	0.20	ppb	#	80
72) 1,2,4-Trichlorobenzene	12.005	180	3469	0.24	ppb		90
73) Hexachlorobutadiene	12.188	225	467	0.20	ppb		92
74) Naphthalene	12.243	128	10250	0.21	ppb		100
75) 1,2,3-Trichlorobenzene	12.493	180	3387	0.25	ppb	#	83

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319007.d
Acq On : 19 Mar 2014 11:43 am
Operator :
Sample : 0.2 PPB ICAL
Misc : V3-124-10
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 13:19:44 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319008.d
Acq On : 19 Mar 2014 12:10 pm
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 12:25:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.586	168	270505	10.00	ppb		0.00
28) 1,4-Difluorobenzene	5.208	114	442443	10.00	ppb		0.00
38) Chlorobenzene-d5	7.799	117	366094	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	10.024	152	148913	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.543	111	124292	9.26	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 92.60%				
36) Toluene-d8	6.494	98	549011	9.68	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.80%				
54) 4-Bromofluorobenzene	8.908	95	199210	9.96	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.324	85	19281	1.13	ppb		96
3) Chloromethane	1.477	50	36346	0.98	ppb		99
4) Vinyl Chloride	1.568	62	25508	1.01	ppb		99
5) Bromomethane	1.843	96	9418	2.36	ppb		97
6) Chloroethane	1.934	64	13634	0.99	ppb		99
7) Trichlorofluoromethane	2.172	101	27269	0.95	ppb		100
8) 1,1-Dichloroethene	2.629	61	30317	0.94	ppb		100
9) Acetone	2.678	43	8049	2.39	ppb		99
10) Iodomethane	2.763	142	16562	1.32	ppb		95
11) Carbon Disulfide	2.818	76	48312	1.04	ppb		100
12) Methylene Chloride	3.050	49	32076	0.93	ppb		98
13) (trans) 1,2-Dichloroet...	3.300	61	30175	0.95	ppb		100
14) Methyl t-Butyl Ether	3.294	73	54572	0.94	ppb		98
15) 1,1-Dichloroethane	3.647	63	36586	0.93	ppb		97
16) Vinyl Acetate	3.702	43	30309	1.26	ppb	#	95
17) 2,2-Dichloropropane	4.147	77	28813	0.99	ppb		97
18) (cis) 1,2-Dichloroethene	4.147	61	34633	0.93	ppb		99
19) 2-Butanone	4.165	43	8725	1.88	ppb		97
20) Bromochloromethane	4.348	130	9978	0.95	ppb		96
21) Chloroform	4.409	83	29478	0.91	ppb		98
22) 1,1,1-Trichloroethane	4.574	97	28024	0.90	ppb	#	1
24) Carbon Tetrachloride	4.720	117	24851	0.92	ppb		94
25) 1,1-Dichloropropene	4.714	75	26613	0.94	ppb		98
26) Benzene	4.891	78	75939	0.94	ppb		99
27) 1,2-Dichloroethane	4.897	62	24304	0.96	ppb		95
29) Trichloroethene	5.439	130	23789	1.02	ppb		97
30) 1,2-Dichloropropane	5.628	63	22715	1.01	ppb		98
31) Dibromomethane	5.726	174	9463	0.96	ppb		98
32) Bromodichloromethane	5.860	83	23145	0.97	ppb		99
33) 2-Chloroethyl Vinyl Ether	6.116	63	12256	1.06	ppb		95
34) (cis) 1,3-Dichloropropene	6.250	75	31927	1.01	ppb		97
35) Methyl Isobutyl Ketone	6.384	43	28569	0.96	ppb		98
37) Toluene	6.555	91	80022	0.96	ppb		99
39) (trans) 1,3-Dichloropr...	6.738	75	25746	0.98	ppb		100
40) 1,1,2-Trichloroethane	6.903	97	14897	0.93	ppb		97
41) Tetrachloroethene	7.049	166	19311	0.97	ppb		98
42) 1,3-Dichloropropane	7.055	76	26537	0.99	ppb		100

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319008.d
Acq On : 19 Mar 2014 12:10 pm
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 12:25:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration

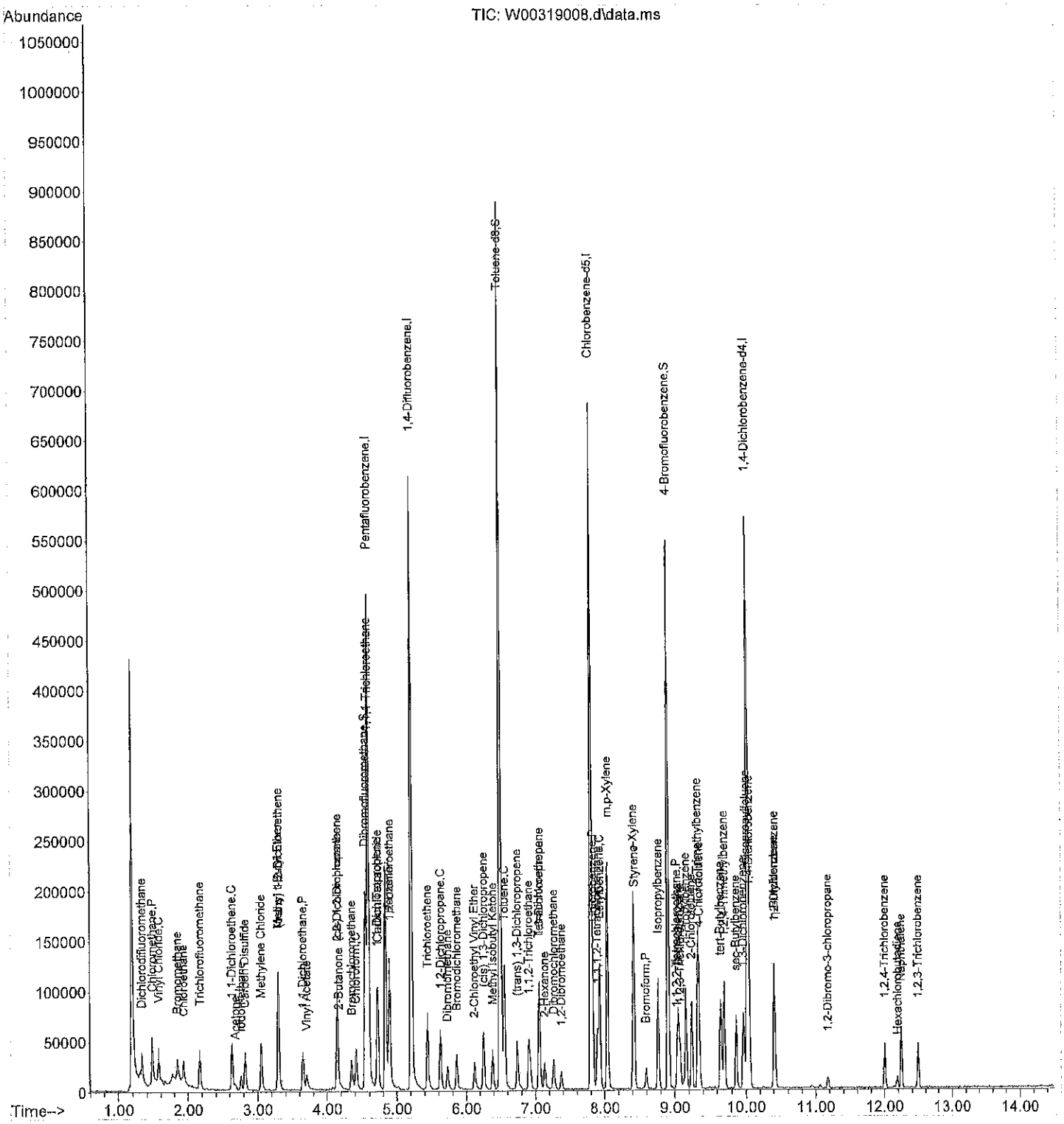
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) 2-Hexanone	7.128	43	21353	0.91	ppb		97
44) Dibromochloromethane	7.262	129	15487	0.93	ppb		99
45) 1,2-Dibromoethane	7.372	107	13666	0.98	ppb		96
46) Chlorobenzene	7.829	112	44390	0.95	ppb		98
47) 1,1,1,2-Tetrachloroethane	7.896	133	15710	0.92	ppb		93
48) Ethylbenzene	7.933	91	88081	0.99	ppb		98
49) m,p-Xylene	8.043	91	128506	1.94	ppb		99
50) o-Xylene	8.414	91	64784	0.98	ppb		100
51) Styrene	8.427	104	54555	0.96	ppb		100
52) Bromoform	8.591	173	10704	0.93	ppb		100
53) Isopropylbenzene	8.768	105	72922	1.00	ppb		99
56) Bromobenzene	9.055	156	17857	0.94	ppb		97
57) 1,1,2,2-Tetrachloroethane	9.030	83	13498	0.88	ppb		99
58) 1,2,3-Trichloropropane	9.079	75	17852	1.02	ppb	#	100
59) n-Propylbenzene	9.158	91	77377	0.97	ppb		99
60) 2-Chlorotoluene	9.237	126	16081	0.94	ppb		96
61) 4-Chlorotoluene	9.347	126	16257	0.94	ppb		100
62) 1,3,5-Trimethylbenzene	9.329	105	59169	0.99	ppb		100
63) tert-Butylbenzene	9.646	119	40523	0.98	ppb		98
64) 1,2,4-Trimethylbenzene	9.695	105	58052	0.94	ppb		97
65) sec-Butylbenzene	9.859	105	51940	0.97	ppb		98
66) 1,3-Dichlorobenzene	9.963	146	31334	1.00	ppb		98
67) p-Isopropyltoluene	10.006	119	40770	0.95	ppb		98
68) 1,4-Dichlorobenzene	10.048	146	33196	0.95	ppb		95
69) 1,2-Dichlorobenzene	10.414	146	29519	0.97	ppb		100
70) n-Butylbenzene	10.408	91	34096	1.00	ppb		98
71) 1,2-Dibromo-3-chloropr...	11.170	157	3554	0.90	ppb		93
72) 1,2,4-Trichlorobenzene	12.005	180	13351	0.91	ppb		98
73) Hexachlorobutadiene	12.194	225	2490	1.04	ppb		99
74) Naphthalene	12.243	128	49280	0.96	ppb		98
75) 1,2,3-Trichlorobenzene	12.487	180	13881	0.99	ppb		93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319008.d
Acq On : 19 Mar 2014 12:10 pm
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 12:25:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319009.d
Acq On : 19 Mar 2014 12:37 pm
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 12:51:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.586	168	263709	10.00	ppb	0.00
28) 1,4-Difluorobenzene	5.208	114	430841	10.00	ppb	0.00
38) Chlorobenzene-d5	7.799	117	356850	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	10.030	152	145730	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.543	111	116739	8.92	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 89.20%			
36) Toluene-d8	6.494	98	541888	9.81	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 98.10%			
54) 4-Bromofluorobenzene	8.908	95	193351	9.92	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.324	85	39468	2.16	ppb	97
3) Chloromethane	1.477	50	71372	1.97	ppb	99
4) Vinyl Chloride	1.562	62	50393	2.05	ppb	99
5) Bromomethane	1.843	96	18909	3.33	ppb	95
6) Chloroethane	1.934	64	25765	1.92	ppb	100
7) Trichlorofluoromethane	2.172	101	55090	1.97	ppb	98
8) 1,1-Dichloroethene	2.629	61	60215	1.91	ppb	99
9) Acetone	2.666	43	13972	2.81	ppb	95
10) Iodomethane	2.763	142	32914	2.03	ppb	99
11) Carbon Disulfide	2.818	76	92900	2.05	ppb	100
12) Methylene Chloride	3.050	49	62945	1.88	ppb	99
13) (trans) 1,2-Dichloroet...	3.294	61	58093	1.87	ppb	98
14) Methyl t-Butyl Ether	3.294	73	107936	1.90	ppb	98
15) 1,1-Dichloroethane	3.647	63	72079	1.88	ppb	98
16) Vinyl Acetate	3.702	43	48984	2.09	ppb	98
17) 2,2-Dichloropropane	4.147	77	54696	1.92	ppb	100
18) (cis) 1,2-Dichloroethene	4.147	61	67411	1.86	ppb	99
19) 2-Butanone	4.159	43	17466	2.36	ppb	96
20) Bromochloromethane	4.348	130	19497	1.90	ppb	99
21) Chloroform	4.415	83	59227	1.87	ppb	99
22) 1,1,1-Trichloroethane	4.580	97	55740	1.84	ppb #	1
24) Carbon Tetrachloride	4.720	117	49691	1.89	ppb	95
25) 1,1-Dichloropropene	4.714	75	53052	1.92	ppb	97
26) Benzene	4.891	78	151276	1.93	ppb	98
27) 1,2-Dichloroethane	4.897	62	46546	1.88	ppb	96
29) Trichloroethene	5.439	130	46999	2.06	ppb	96
30) 1,2-Dichloropropane	5.622	63	43066	1.97	ppb	99
31) Dibromomethane	5.732	174	19093	1.99	ppb	95
32) Bromodichloromethane	5.860	83	45583	1.97	ppb	100
33) 2-Chloroethyl Vinyl Ether	6.116	63	27090	2.40	ppb	98
34) (cis) 1,3-Dichloropropene	6.250	75	61160	1.99	ppb	97
35) Methyl Isobutyl Ketone	6.384	43	55901	1.93	ppb	98
37) Toluene	6.555	91	160732	1.98	ppb	100
39) (trans) 1,3-Dichloropr...	6.738	75	50972	2.00	ppb	99
40) 1,1,2-Trichloroethane	6.903	97	28920	1.93	ppb	99
41) Tetrachloroethene	7.049	166	37713	1.95	ppb	98
42) 1,3-Dichloropropane	7.055	76	53128	2.03	ppb	99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319009.d
Acq On : 19 Mar 2014 12:37 pm
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 12:51:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration

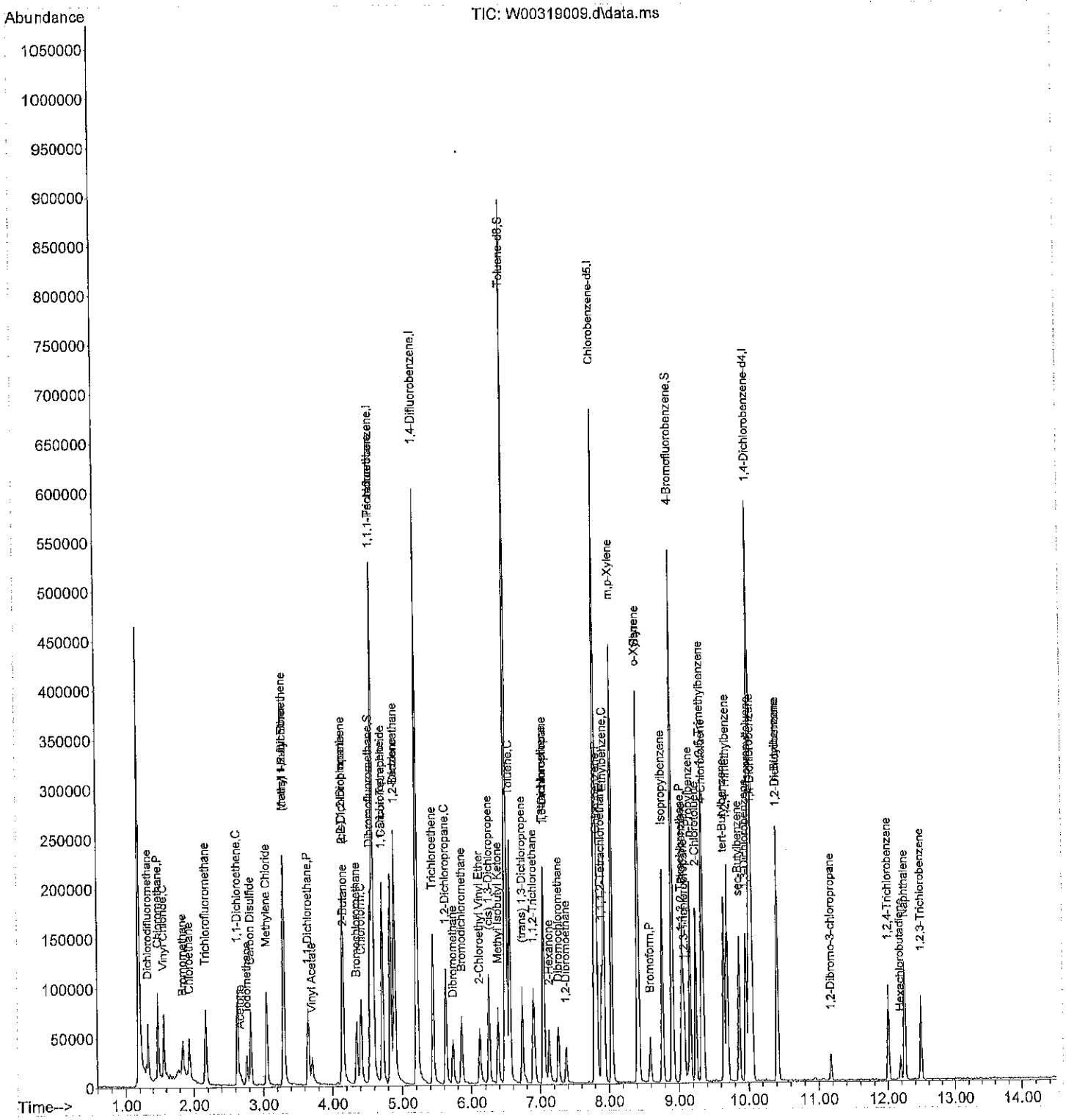
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) 2-Hexanone	7.128	43	42836	1.88	ppb		99
44) Dibromochloromethane	7.262	129	31177	1.91	ppb		99
45) 1,2-Dibromoethane	7.372	107	27691	2.05	ppb		98
46) Chlorobenzene	7.829	112	87187	1.92	ppb		97
47) 1,1,1,2-Tetrachloroethane	7.896	133	31948	1.91	ppb		99
48) Ethylbenzene	7.933	91	174671	2.02	ppb		100
49) m,p-Xylene	8.043	91	257538	4.00	ppb		100
50) o-Xylene	8.414	91	130415	2.02	ppb		97
51) Styrene	8.421	104	111474	2.01	ppb		100
52) Bromoform	8.591	173	21931	1.95	ppb		99
53) Isopropylbenzene	8.768	105	142544	2.00	ppb		100
56) Bromobenzene	9.055	156	36377	1.95	ppb		100
57) 1,1,2,2-Tetrachloroethane	9.036	83	27966	1.86	ppb		98
58) 1,2,3-Trichloropropane	9.079	75	33350	1.95	ppb	#	100
59) n-Propylbenzene	9.158	91	156496	2.00	ppb		99
60) 2-Chlorotoluene	9.244	126	32470	1.95	ppb		99
61) 4-Chlorotoluene	9.347	126	34338	2.02	ppb		99
62) 1,3,5-Trimethylbenzene	9.329	105	117642	2.00	ppb		99
63) tert-Butylbenzene	9.646	119	82056	2.02	ppb		99
64) 1,2,4-Trimethylbenzene	9.695	105	122503	2.03	ppb		97
65) sec-Butylbenzene	9.859	105	104870	2.00	ppb		97
66) 1,3-Dichlorobenzene	9.963	146	62153	2.02	ppb		99
67) p-Isopropyltoluene	10.006	119	85677	2.04	ppb		100
68) 1,4-Dichlorobenzene	10.048	146	69381	2.04	ppb		100
69) 1,2-Dichlorobenzene	10.414	146	59624	1.99	ppb		97
70) n-Butylbenzene	10.408	91	67742	2.03	ppb		99
71) 1,2-Dibromo-3-chloropr...	11.176	157	7127	1.84	ppb		97
72) 1,2,4-Trichlorobenzene	12.005	180	29615	2.07	ppb		95
73) Hexachlorobutadiene	12.182	225	5090	2.17	ppb		96
74) Naphthalene	12.249	128	97425	1.94	ppb		98
75) 1,2,3-Trichlorobenzene	12.487	180	26890	1.96	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319009.d
Acq On : 19 Mar 2014 12:37 pm
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 12:51:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319010.d
Acq On : 19 Mar 2014 1:03 pm
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 13:18:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.586	168	266834	10.00	ppb		0.00
28) 1,4-Difluorobenzene	5.208	114	436618	10.00	ppb		0.00
38) Chlorobenzene-d5	7.799	117	354527	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	10.024	152	147771	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.543	111	119358	9.01	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 90.10%				
36) Toluene-d8	6.494	98	555740	9.93	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.30%				
54) 4-Bromofluorobenzene	8.908	95	196797	10.16	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 101.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.324	85	101508	5.17	ppb		99
3) Chloromethane	1.471	50	162247	4.42	ppb		98
4) Vinyl Chloride	1.562	62	127691	5.14	ppb		98
5) Bromomethane	1.843	96	43433	5.74	ppb		98
6) Chloroethane	1.934	64	65685	4.85	ppb		96
7) Trichlorofluoromethane	2.166	101	142434	5.02	ppb		99
8) 1,1-Dichloroethene	2.629	61	152968	4.80	ppb		100
9) Acetone	2.672	43	34507	4.19	ppb		99
10) Iodomethane	2.757	142	93424	4.55	ppb		100
11) Carbon Disulfide	2.818	76	236783	5.17	ppb		100
12) Methylene Chloride	3.050	49	158703	4.67	ppb		99
13) (trans) 1,2-Dichloroet...	3.293	61	152071	4.84	ppb		99
14) Methyl t-Butyl Ether	3.293	73	278314	4.85	ppb		99
15) 1,1-Dichloroethane	3.647	63	185146	4.78	ppb		99
16) Vinyl Acetate	3.696	43	121873	5.13	ppb		97
17) 2,2-Dichloropropane	4.147	77	143598	4.99	ppb		98
18) (cis) 1,2-Dichloroethene	4.141	61	178060	4.84	ppb		99
19) 2-Butanone	4.153	43	53959	4.29	ppb		99
20) Bromochloromethane	4.348	130	49720	4.79	ppb		98
21) Chloroform	4.409	83	150456	4.69	ppb		99
22) 1,1,1-Trichloroethane	4.574	97	146294	4.77	ppb	#	54
24) Carbon Tetrachloride	4.720	117	125657	4.73	ppb		100
25) 1,1-Dichloropropene	4.714	75	131211	4.70	ppb		100
26) Benzene	4.891	78	389197	4.90	ppb		99
27) 1,2-Dichloroethane	4.897	62	122468	4.88	ppb		98
29) Trichloroethene	5.439	130	121029	5.25	ppb		98
30) 1,2-Dichloropropane	5.622	63	110971	5.01	ppb		98
31) Dibromomethane	5.726	174	48620	5.00	ppb		97
32) Bromodichloromethane	5.860	83	114770	4.90	ppb		100
33) 2-Chloroethyl Vinyl Ether	6.116	63	67242	5.89	ppb		99
34) (cis) 1,3-Dichloropropene	6.250	75	154878	4.96	ppb		99
35) Methyl Isobutyl Ketone	6.378	43	147144	5.02	ppb		98
37) Toluene	6.555	91	409751	4.97	ppb		99
39) (trans) 1,3-Dichloropr...	6.738	75	125934	4.97	ppb		100
40) 1,1,2-Trichloroethane	6.903	97	72637	5.00	ppb		99
41) Tetrachloroethene	7.049	166	100817	5.24	ppb		97
42) 1,3-Dichloropropane	7.055	76	130179	5.01	ppb		98

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319010.d
Acq On : 19 Mar 2014 1:03 pm
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 13:18:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration

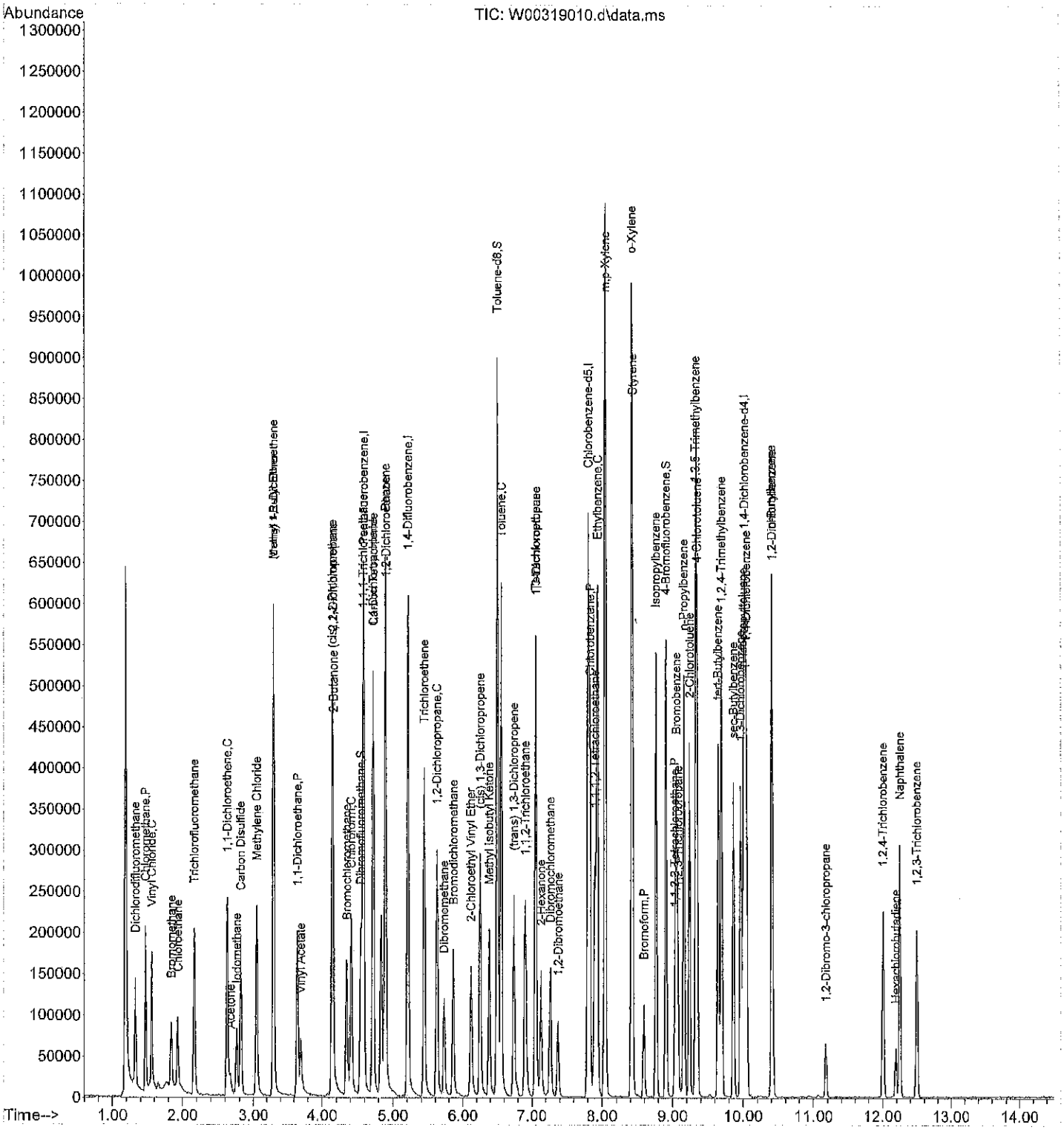
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) 2-Hexanone	7.128	43	110718	4.89	ppb		99
44) Dibromochloromethane	7.262	129	81330	5.02	ppb		97
45) 1,2-Dibromoethane	7.372	107	66952	4.98	ppb		97
46) Chlorobenzene	7.829	112	227116	5.03	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.896	133	82666	4.98	ppb		100
48) Ethylbenzene	7.933	91	437476	5.09	ppb		100
49) m,p-Xylene	8.043	91	658832	10.29	ppb		100
50) o-Xylene	8.414	91	324296	5.07	ppb		99
51) Styrene	8.427	104	278496	5.06	ppb		100
52) Bromoform	8.591	173	56005	5.01	ppb		98
53) Isopropylbenzene	8.762	105	363062	5.12	ppb		100
56) Bromobenzene	9.055	156	91449	4.84	ppb		99
57) 1,1,2,2-Tetrachloroethane	9.030	83	66931	4.40	ppb		99
58) 1,2,3-Trichloropropane	9.079	75	83663	4.83	ppb	#	100
59) n-Propylbenzene	9.158	91	396748	5.00	ppb		99
60) 2-Chlorotoluene	9.244	126	81909	4.84	ppb		97
61) 4-Chlorotoluene	9.347	126	84191	4.88	ppb		98
62) 1,3,5-Trimethylbenzene	9.329	105	294513	4.94	ppb		100
63) tert-Butylbenzene	9.646	119	206765	5.03	ppb		100
64) 1,2,4-Trimethylbenzene	9.695	105	300351	4.91	ppb		100
65) sec-Butylbenzene	9.865	105	263023	4.96	ppb		99
66) 1,3-Dichlorobenzene	9.963	146	153717	4.93	ppb		99
67) p-Isopropyltoluene	10.006	119	207423	4.88	ppb		98
68) 1,4-Dichlorobenzene	10.048	146	168620	4.88	ppb		98
69) 1,2-Dichlorobenzene	10.414	146	148088	4.88	ppb		100
70) n-Butylbenzene	10.408	91	170272	5.04	ppb		99
71) 1,2-Dibromo-3-chloropr...	11.176	157	18009	4.60	ppb		97
72) 1,2,4-Trichlorobenzene	12.005	180	70683	4.86	ppb		100
73) Hexachlorobutadiene	12.188	225	13018	5.48	ppb		97
74) Naphthalene	12.249	128	250201	4.92	ppb		99
75) 1,2,3-Trichlorobenzene	12.487	180	68589	4.92	ppb		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319010.d
Acq On : 19 Mar 2014 1:03 pm
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 13:18:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319011.d
Acq On : 19 Mar 2014 1:30 pm
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 19 13:45:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.586	168	281976	10.00	ppb	0.00
28) 1,4-Difluorobenzene	5.208	114	453815	10.00	ppb	0.00
38) Chlorobenzene-d5	7.799	117	372157	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	10.024	152	154333	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.543	111	122830	8.78	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 87.80%			
36) Toluene-d8	6.494	98	551786	9.48	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 94.80%			
54) 4-Bromofluorobenzene	8.908	95	198259	9.75	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.50%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.325	85	199786	9.46	ppb	99
3) Chloromethane	1.477	50	348362	8.98	ppb	100
4) Vinyl Chloride	1.568	62	246577	9.39	ppb	100
5) Bromomethane	1.843	96	86547	9.54	ppb	98
6) Chloroethane	1.934	64	124542	8.70	ppb	98
7) Trichlorofluoromethane	2.172	101	274429	9.16	ppb	99
8) 1,1-Dichloroethene	2.629	61	298498	8.86	ppb	99
9) Acetone	2.672	43	60188	5.71	ppb	98
10) Iodomethane	2.757	142	187105	8.06	ppb	99
11) Carbon Disulfide	2.824	76	450121	9.30	ppb	100
12) Methylene Chloride	3.050	49	307834	8.58	ppb	99
13) (trans) 1,2-Dichloroet...	3.294	61	295260	8.90	ppb	99
14) Methyl t-Butyl Ether	3.300	73	537545	8.86	ppb	99
15) 1,1-Dichloroethane	3.653	63	360141	8.80	ppb	98
16) Vinyl Acetate	3.696	43	201142	8.02	ppb	98
17) 2,2-Dichloropropane	4.147	77	264147	8.69	ppb	100
18) (cis) 1,2-Dichloroethene	4.147	61	341727	8.80	ppb	99
19) 2-Butanone	4.153	43	115726	7.23	ppb	95
20) Bromochloromethane	4.348	130	96008	8.75	ppb	99
21) Chloroform	4.409	83	295712	8.72	ppb	97
22) 1,1,1-Trichloroethane	4.580	97	280908	8.67	ppb	96
24) Carbon Tetrachloride	4.720	117	242198	8.62	ppb	98
25) 1,1-Dichloropropene	4.720	75	256083	8.68	ppb	99
26) Benzene	4.891	78	741562	8.84	ppb	99
27) 1,2-Dichloroethane	4.897	62	241445	9.11	ppb	95
29) Trichloroethene	5.440	130	236547	9.86	ppb	99
30) 1,2-Dichloropropane	5.622	63	216417	9.40	ppb	98
31) Dibromomethane	5.726	174	94594	9.37	ppb	99
32) Bromodichloromethane	5.854	83	224553	9.22	ppb	99
33) 2-Chloroethyl Vinyl Ether	6.116	63	132626	11.18	ppb	99
34) (cis) 1,3-Dichloropropene	6.250	75	301217	9.29	ppb	100
35) Methyl Isobutyl Ketone	6.384	43	294337	9.66	ppb	99
37) Toluene	6.555	91	780001	9.10	ppb	100
39) (trans) 1,3-Dichloropr...	6.738	75	246979	9.29	ppb	99
40) 1,1,2-Trichloroethane	6.903	97	144666	9.55	ppb	95
41) Tetrachloroethene	7.049	166	186043	9.22	ppb	100
42) 1,3-Dichloropropane	7.055	76	255760	9.37	ppb	99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319011.d
Acq On : 19 Mar 2014 1:30 pm
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 19 13:45:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration

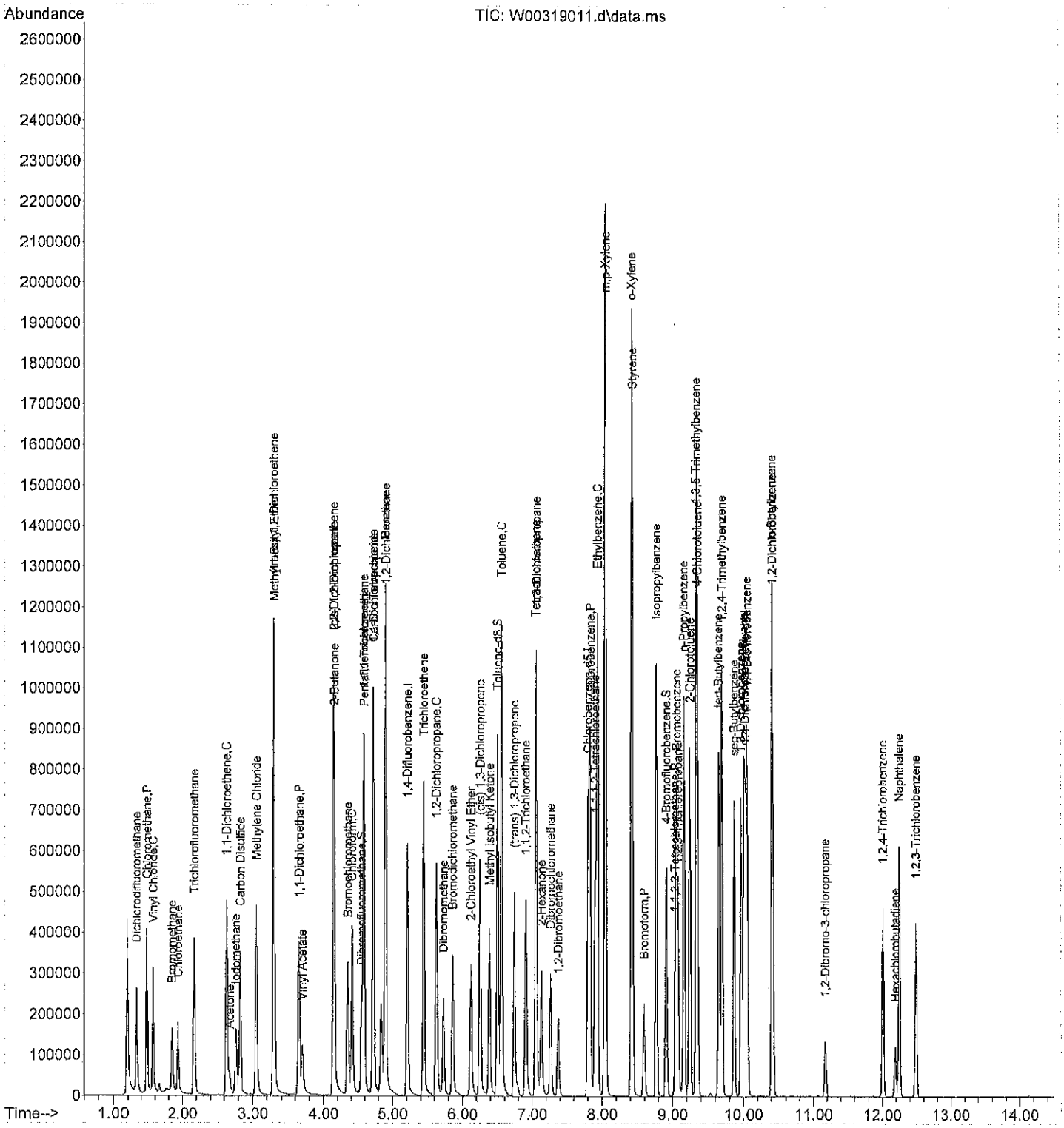
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) 2-Hexanone	7.128	43	223424	9.41	ppb		99
44) Dibromochloromethane	7.262	129	155943	9.18	ppb		98
45) 1,2-Dibromoethane	7.372	107	134302	9.51	ppb		97
46) Chlorobenzene	7.829	112	437013	9.23	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.902	133	162324	9.32	ppb		100
48) Ethylbenzene	7.933	91	844764	9.36	ppb		99
49) m,p-Xylene	8.043	91	1272680	18.93	ppb		100
50) o-Xylene	8.415	91	623084	9.28	ppb		99
51) Styrene	8.427	104	541122	9.36	ppb		100
52) Bromoform	8.591	173	111252	9.49	ppb		99
53) Isopropylbenzene	8.768	105	699275	9.40	ppb		100
56) Bromobenzene	9.055	156	179972	9.13	ppb		99
57) 1,1,2,2-Tetrachloroethane	9.030	83	130454	8.21	ppb		99
58) 1,2,3-Trichloropropane	9.073	75	169066	9.34	ppb	#	100
59) n-Propylbenzene	9.158	91	767905	9.27	ppb		99
60) 2-Chlorotoluene	9.244	126	163449	9.25	ppb		99
61) 4-Chlorotoluene	9.347	126	162425	9.02	ppb		99
62) 1,3,5-Trimethylbenzene	9.329	105	572070	9.19	ppb		99
63) tert-Butylbenzene	9.646	119	399526	9.30	ppb		100
64) 1,2,4-Trimethylbenzene	9.695	105	591774	9.26	ppb		99
65) sec-Butylbenzene	9.866	105	513538	9.27	ppb		100
66) 1,3-Dichlorobenzene	9.963	146	300877	9.24	ppb		98
67) p-Isopropyltoluene	10.006	119	416080	9.37	ppb		100
68) 1,4-Dichlorobenzene	10.048	146	336993	9.33	ppb		99
69) 1,2-Dichlorobenzene	10.414	146	295360	9.33	ppb		98
70) n-Butylbenzene	10.408	91	336460	9.54	ppb		99
71) 1,2-Dibromo-3-chloropr...	11.170	157	38652	9.44	ppb		99
72) 1,2,4-Trichlorobenzene	12.005	180	147089	9.69	ppb		97
73) Hexachlorobutadiene	12.188	225	25283	10.19	ppb		96
74) Naphthalene	12.243	128	508442	9.57	ppb		99
75) 1,2,3-Trichlorobenzene	12.487	180	136525	9.38	ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319011.d
Acq On : 19 Mar 2014 1:30 pm
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 19 13:45:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319012.d
Acq On : 19 Mar 2014 1:57 pm
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 19 14:11:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.586	168	270473	10.00	ppb		0.00
28) 1,4-Difluorobenzene	5.208	114	444879	10.00	ppb		0.00
38) Chlorobenzene-d5	7.799	117	360809	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	10.030	152	147455	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.543	111	122101	9.10	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 91.00%				
36) Toluene-d8	6.494	98	550867	9.66	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.60%				
54) 4-Bromofluorobenzene	8.908	95	192593	9.77	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.70%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.324	85	521454	25.40	ppb		99
3) Chloromethane	1.471	50	780105	20.98	ppb		99
4) Vinyl Chloride	1.562	62	644104	25.56	ppb		98
5) Bromomethane	1.843	96	220669	22.96	ppb		99
6) Chloroethane	1.934	64	321270	23.40	ppb		95
7) Trichlorofluoromethane	2.166	101	682160	23.73	ppb		99
8) 1,1-Dichloroethene	2.629	61	766340	23.72	ppb		99
9) Acetone	2.666	43	146767	11.67	ppb		99
10) Iodomethane	2.757	142	523915	22.31	ppb		98
11) Carbon Disulfide	2.818	76	1171276	25.24	ppb		100
12) Methylene Chloride	3.043	49	781696	22.70	ppb		99
13) (trans) 1,2-Dichloroet...	3.293	61	750930	23.60	ppb		100
14) Methyl t-Butyl Ether	3.293	73	1362312	23.40	ppb		100
15) 1,1-Dichloroethane	3.647	63	909672	23.16	ppb		99
16) Vinyl Acetate	3.696	43	518653	21.56	ppb		99
17) 2,2-Dichloropropane	4.147	77	661714	22.70	ppb		98
18) (cis) 1,2-Dichloroethene	4.141	61	867039	23.27	ppb		99
19) 2-Butanone	4.153	43	287912	16.47	ppb		99
20) Bromochloromethane	4.348	130	237432	22.56	ppb		99
21) Chloroform	4.409	83	741631	22.80	ppb		98
22) 1,1,1-Trichloroethane	4.574	97	720167	23.16	ppb	#	73
24) Carbon Tetrachloride	4.720	117	609092	22.60	ppb		100
25) 1,1-Dichloropropene	4.714	75	648450	22.90	ppb		98
26) Benzene	4.891	78	1870717	23.25	ppb		100
27) 1,2-Dichloroethane	4.897	62	602818	23.70	ppb		96
29) Trichloroethene	5.439	130	590159	25.10	ppb		98
30) 1,2-Dichloropropane	5.622	63	537080	23.81	ppb		100
31) Dibromomethane	5.726	174	236205	23.86	ppb		98
32) Bromodichloromethane	5.854	83	575344	24.09	ppb		100
33) 2-Chloroethyl Vinyl Ether	6.116	63	330714	28.43	ppb		100
34) (cis) 1,3-Dichloropropene	6.250	75	763523	24.01	ppb		100
35) Methyl Isobutyl Ketone	6.378	43	722309	24.18	ppb		99
37) Toluene	6.555	91	1980901	23.58	ppb		99
39) (trans) 1,3-Dichloropr...	6.738	75	624574	24.24	ppb		98
40) 1,1,2-Trichloroethane	6.902	97	350206	23.94	ppb		98
41) Tetrachloroethene	7.049	166	480320	24.54	ppb		99
42) 1,3-Dichloropropane	7.055	76	632708	23.90	ppb		99

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319012.d
Acq On : 19 Mar 2014 1:57 pm
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 19 14:11:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration

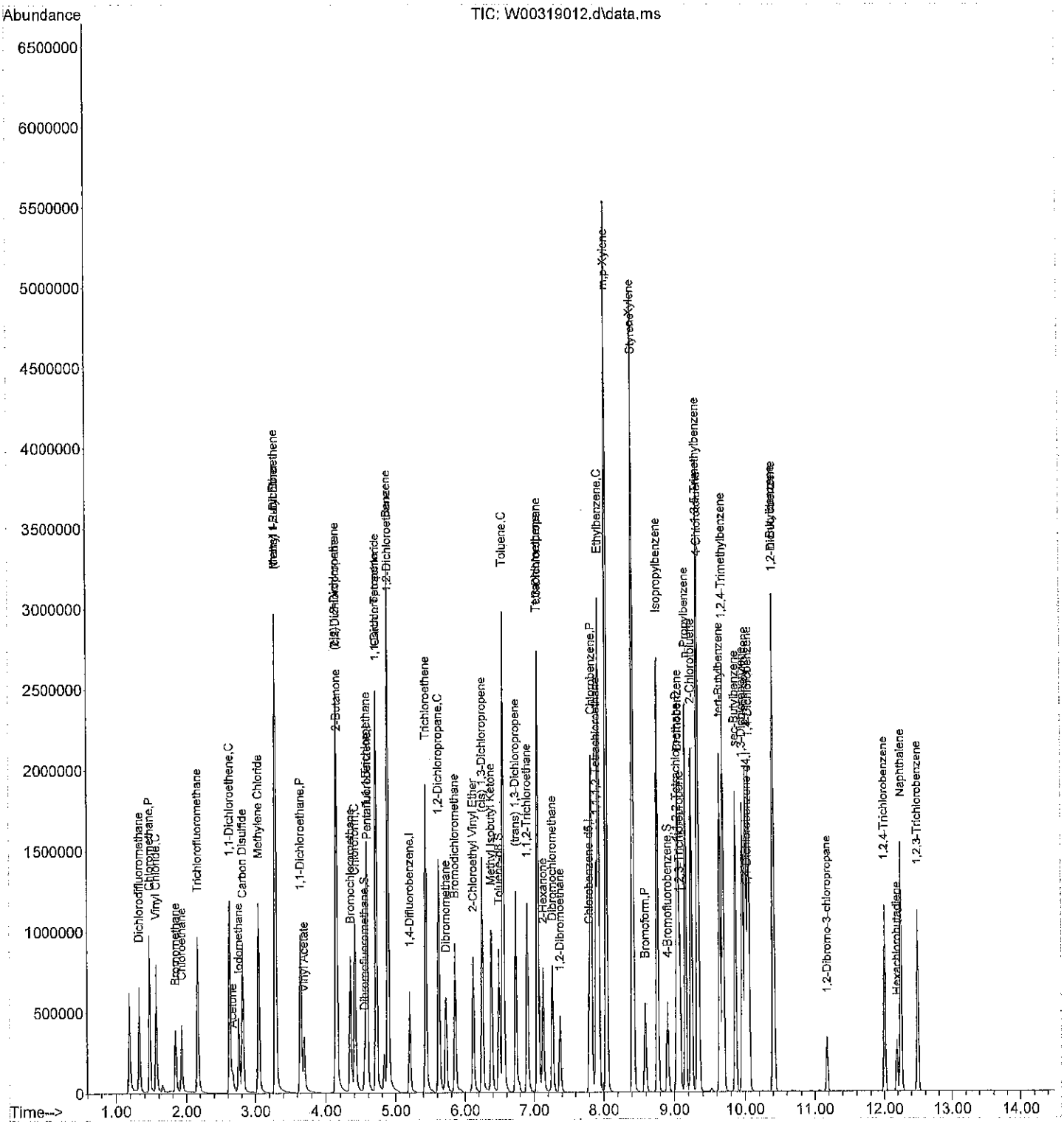
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) 2-Hexanone	7.128	43	544153	23.64	ppb		99
44) Dibromochloromethane	7.262	129	394850	23.97	ppb		99
45) 1,2-Dibromoethane	7.372	107	336153	24.56	ppb		99
46) Chlorobenzene	7.829	112	1096335	23.88	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.902	133	400244	23.71	ppb		100
48) Ethylbenzene	7.933	91	2133368	24.39	ppb		100
49) m,p-Xylene	8.043	91	3162941	48.54	ppb		100
50) o-Xylene	8.414	91	1553221	23.85	ppb		99
51) Styrene	8.427	104	1346270	24.03	ppb		100
52) Bromoform	8.591	173	274830	24.18	ppb		100
53) Isopropylbenzene	8.768	105	1770634	24.55	ppb		100
56) Bromobenzene	9.055	156	447002	23.73	ppb		99
57) 1,1,2,2-Tetrachloroethane	9.036	83	327739	21.59	ppb		99
58) 1,2,3-Trichloropropane	9.079	75	406909	23.53	ppb	#	100
59) n-Propylbenzene	9.164	91	1945659	24.58	ppb		99
60) 2-Chlorotoluene	9.244	126	400132	23.71	ppb		100
61) 4-Chlorotoluene	9.347	126	411944	23.95	ppb		97
62) 1,3,5-Trimethylbenzene	9.329	105	1432172	24.09	ppb		99
63) tert-Butylbenzene	9.652	119	1010979	24.64	ppb		99
64) 1,2,4-Trimethylbenzene	9.695	105	1474189	24.14	ppb		99
65) sec-Butylbenzene	9.865	105	1305045	24.65	ppb		100
66) 1,3-Dichlorobenzene	9.963	146	761388	24.47	ppb		100
67) p-Isopropyltoluene	10.006	119	1046834	24.67	ppb		100
68) 1,4-Dichlorobenzene	10.054	146	834854	24.20	ppb		100
69) 1,2-Dichlorobenzene	10.414	146	729028	24.09	ppb		99
70) n-Butylbenzene	10.408	91	848682	25.18	ppb		99
71) 1,2-Dibromo-3-chloropr...	11.176	157	94529	24.17	ppb		99
72) 1,2,4-Trichlorobenzene	12.005	180	372533	25.69	ppb		99
73) Hexachlorobutadiene	12.188	225	63135	26.62	ppb		97
74) Naphthalene	12.249	128	1291448	25.44	ppb		99
75) 1,2,3-Trichlorobenzene	12.487	180	359844	25.88	ppb		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319012.d
Acq On : 19 Mar 2014 1:57 pm
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 19 14:11:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319014.d
Acq On : 19 Mar 2014 2:50 pm
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 19 15:05:11 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.586	168	276569	10.00	ppb		0.00
28) 1,4-Difluorobenzene	5.208	114	450150	10.00	ppb		0.00
38) Chlorobenzene-d5	7.799	117	375053	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	10.030	152	150417	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.543	111	123958	9.03	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 90.30%				
36) Toluene-d8	6.494	98	575333	9.97	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.70%				
54) 4-Bromofluorobenzene	8.908	95	200601	9.79	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.325	85	1071922	50.85	ppb		99
3) Chloromethane	1.477	50	1780950	46.83	ppb		100
4) Vinyl Chloride	1.568	62	1322609	51.33	ppb		99
5) Bromomethane	1.849	96	501733	49.28	ppb		98
6) Chloroethane	1.934	64	667262	47.52	ppb		97
7) Trichlorofluoromethane	2.172	101	1419985	48.31	ppb		100
8) 1,1-Dichloroethene	2.629	61	1549382	46.89	ppb		100
9) Acetone	2.666	43	330483	23.48	ppb		98
10) Iodomethane	2.757	142	1081728	44.39	ppb		99
11) Carbon Disulfide	2.824	76	2361618	49.77	ppb		100
12) Methylene Chloride	3.050	49	1616923	45.93	ppb		99
13) (trans) 1,2-Dichloroet...	3.294	61	1534233	47.16	ppb		99
14) Methyl t-Butyl Ether	3.300	73	2756819	46.31	ppb		99
15) 1,1-Dichloroethane	3.647	63	1884459	46.92	ppb		99
16) Vinyl Acetate	3.696	43	686798	27.92	ppb		98
17) 2,2-Dichloropropane	4.147	77	1288480	43.23	ppb		99
18) (cis) 1,2-Dichloroethene	4.141	61	1745662	45.82	ppb		99
19) 2-Butanone	4.153	43	650900	34.69	ppb		99
20) Bromochloromethane	4.348	130	488249	45.36	ppb		98
21) Chloroform	4.409	83	1526494	45.90	ppb		99
22) 1,1,1-Trichloroethane	4.580	97	1441807	45.35	ppb	#	64
24) Carbon Tetrachloride	4.720	117	1239884	44.98	ppb		97
25) 1,1-Dichloropropene	4.720	75	1314820	45.41	ppb		99
26) Benzene	4.891	78	3801307	46.21	ppb		99
27) 1,2-Dichloroethane	4.897	62	1225083	47.11	ppb		98
29) Trichloroethene	5.440	130	1260786	53.00	ppb		99
30) 1,2-Dichloropropane	5.622	63	1085728	47.57	ppb		100
31) Dibromomethane	5.726	174	488431	48.76	ppb		98
32) Bromodichloromethane	5.854	83	1173453	48.56	ppb		100
33) 2-Chloroethyl Vinyl Ether	6.116	63	695931	59.13	ppb		100
34) (cis) 1,3-Dichloropropene	6.250	75	1550915	48.20	ppb		100
35) Methyl Isobutyl Ketone	6.385	43	1556664	51.50	ppb		98
37) Toluene	6.555	91	4027907	47.39	ppb		100
39) (trans) 1,3-Dichloropr...	6.738	75	1273473	47.54	ppb		99
40) 1,1,2-Trichloroethane	6.903	97	733495	48.32	ppb		99
41) Tetrachloroethene	7.055	166	974286	47.89	ppb		99
42) 1,3-Dichloropropane	7.055	76	1309954	47.61	ppb		99

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319014.d
Acq On : 19 Mar 2014 2:50 pm
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 19 15:05:11 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration

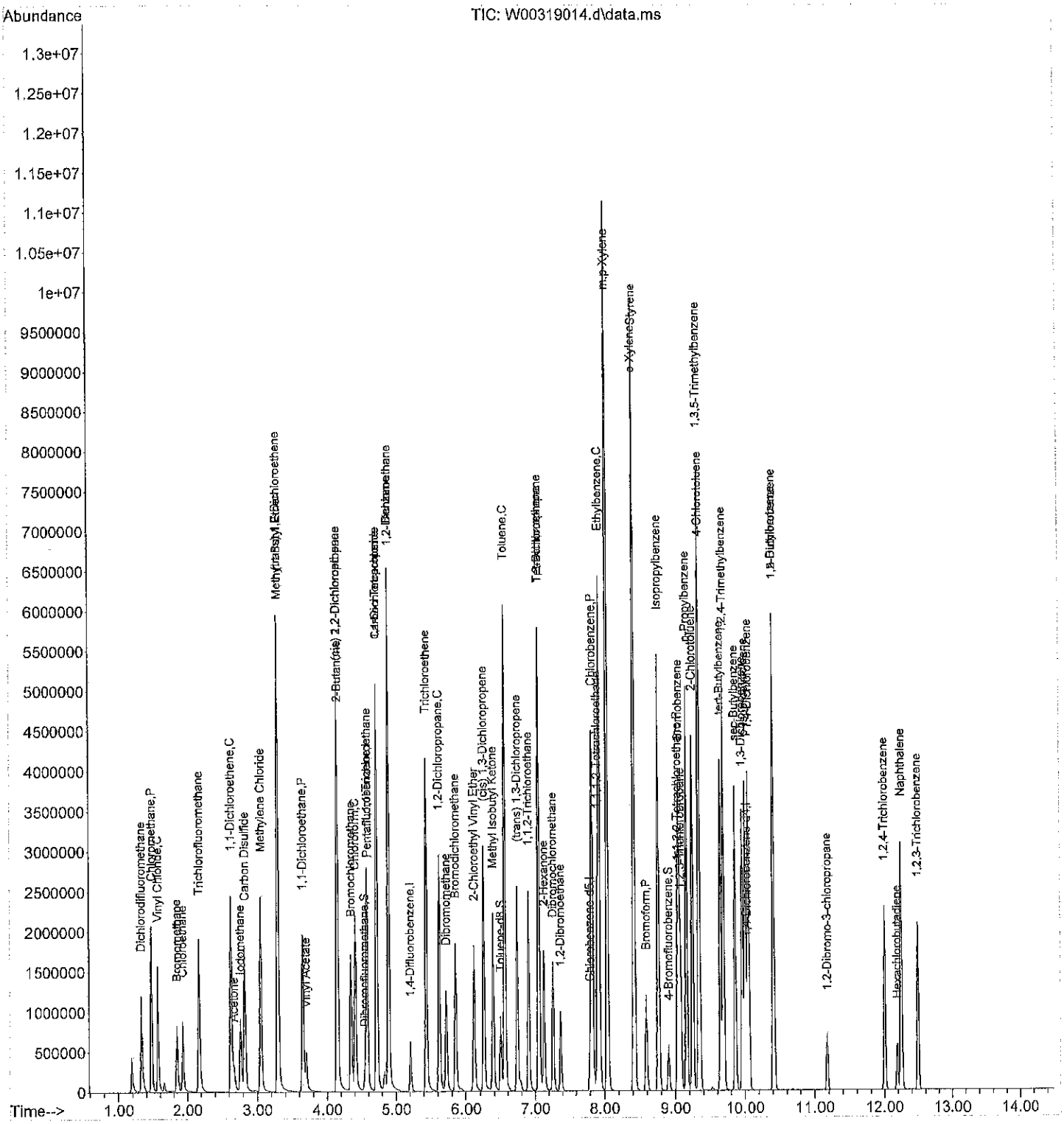
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) 2-Hexanone	7.128	43	1180857	49.34	ppb		99
44) Dibromochloromethane	7.262	129	826110	48.25	ppb		98
45) 1,2-Dibromoethane	7.372	107	697000	48.98	ppb		99
46) Chlorobenzene	7.829	112	2238920	46.91	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.902	133	819010	46.68	ppb		99
48) Ethylbenzene	7.933	91	4351932	47.86	ppb		100
49) m,p-Xylene	8.043	91	6385632	94.27	ppb		100
50) o-Xylene	8.415	91	3085591	45.58	ppb		99
51) Styrene	8.427	104	2720208	46.71	ppb		100
52) Bromoform	8.591	173	582092	49.26	ppb		99
53) Isopropylbenzene	8.768	105	3567416	47.58	ppb		99
56) Bromobenzene	9.055	156	900249	46.84	ppb		98
57) 1,1,2,2-Tetrachloroethane	9.036	83	602981	38.93	ppb		99
58) 1,2,3-Trichloropropane	9.079	75	839109	47.56	ppb	#	100
59) n-Propylbenzene	9.164	91	3920651	48.56	ppb		100
60) 2-Chlorotoluene	9.244	126	814035	47.29	ppb		99
61) 4-Chlorotoluene	9.347	126	818189	46.63	ppb		98
62) 1,3,5-Trimethylbenzene	9.335	105	2850097	46.99	ppb		99
63) tert-Butylbenzene	9.652	119	1991169	47.57	ppb		100
64) 1,2,4-Trimethylbenzene	9.695	105	2924522	46.95	ppb		97
65) sec-Butylbenzene	9.866	105	2604560	48.24	ppb		100
66) 1,3-Dichlorobenzene	9.969	146	1512524	47.65	ppb		100
67) p-Isopropyltoluene	10.006	119	2096663	48.44	ppb		100
68) 1,4-Dichlorobenzene	10.055	146	1673752	47.57	ppb		100
69) 1,2-Dichlorobenzene	10.414	146	1450906	47.01	ppb		99
70) n-Butylbenzene	10.408	91	1681784	48.91	ppb		98
71) 1,2-Dibromo-3-chloropr...	11.176	157	200976	50.38	ppb		98
72) 1,2,4-Trichlorobenzene	12.005	180	723510	48.92	ppb		98
73) Hexachlorobutadiene	12.188	225	118395	48.94	ppb		97
74) Naphthalene	12.249	128	2546262	49.17	ppb		99
75) 1,2,3-Trichlorobenzene	12.487	180	691818	48.77	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319014.d
Acq On : 19 Mar 2014 2:50 pm
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 19 15:05:11 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140318W.M
Quant Title :
QLast Update : Wed Mar 19 08:37:12 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319016.d
Acq On : 19 Mar 2014 3:43 pm
Operator :
Sample : ICV0319W2
Misc : V3-124-3
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 16:06:00 2014
Quant Method : C:\msdchem\1\methods\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:16:40 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.586	168	278143	10.00	ppb	0.00
28) 1,4-Difluorobenzene	5.208	114	434501	10.00	ppb	0.00
38) Chlorobenzene-d5	7.799	117	357649	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	10.030	152	148227	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.543	111	124239	9.96	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 99.60%			
36) Toluene-d8	6.494	98	555370	10.21	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 102.10%			
54) 4-Bromofluorobenzene	8.908	95	198176	10.26	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 102.60%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.325	85	185363	8.91	ppb	100
3) Chloromethane	1.477	50	356592	10.02	ppb	99
4) Vinyl Chloride	1.568	62	267422	10.20	ppb	97
5) Bromomethane	1.843	96	105079	10.63	ppb	99
6) Chloroethane	1.934	64	130984	9.56	ppb	100
7) Trichlorofluoromethane	2.172	101	294386	10.31	ppb	99
8) 1,1-Dichloroethene	2.629	61	339570	10.71	ppb	99
9) Acetone	2.666	43	64549	9.34	ppb	91
10) Iodomethane	2.763	142	194124	10.03	ppb	100
11) Carbon Disulfide	2.824	76	468324	9.36	ppb	100
12) Methylene Chloride	3.050	49	332294	10.05	ppb	99
13) (trans) 1,2-Dichloroet...	3.294	61	313059	10.10	ppb	99
14) Methyl t-Butyl Ether	3.300	73	590367	10.54	ppb	99
15) 1,1-Dichloroethane	3.647	63	390429	10.41	ppb	99
16) Vinyl Acetate	3.702	43	93710	4.17	ppb	99
17) 2,2-Dichloropropane	4.147	77	261099	9.25	ppb	100
18) (cis) 1,2-Dichloroethene	4.147	61	360737	10.10	ppb	100
19) 2-Butanone	4.153	43	122994	11.22	ppb	98
20) Bromochloromethane	4.348	130	104288	10.40	ppb	97
21) Chloroform	4.409	83	323521	10.50	ppb	99
22) 1,1,1-Trichloroethane	4.580	97	303092	10.32	ppb	97
24) Carbon Tetrachloride	4.720	117	260652	10.20	ppb	97
25) 1,1-Dichloropropene	4.714	75	273278	10.08	ppb	99
26) Benzene	4.891	78	796140	10.18	ppb	99
27) 1,2-Dichloroethane	4.897	62	264392	10.63	ppb	100
29) Trichloroethene	5.440	130	268391	11.45	ppb	99
30) 1,2-Dichloropropane	5.623	63	229687	10.62	ppb	99
31) Dibromomethane	5.726	174	104819	11.01	ppb	98
32) Bromodichloromethane	5.860	83	253599	11.27	ppb	99
33) 2-Chloroethyl Vinyl Ether	6.116	63	142674	11.17	ppb	98
34) (cis) 1,3-Dichloropropene	6.250	75	325384	10.72	ppb	100
35) Methyl Isobutyl Ketone	6.378	43	314305	10.73	ppb	99
37) Toluene	6.555	91	849110	10.59	ppb	100
39) (trans) 1,3-Dichloropr...	6.738	75	267839	10.86	ppb	99
40) 1,1,2-Trichloroethane	6.903	97	159279	10.81	ppb	96
41) Tetrachloroethene	7.049	166	206533	10.92	ppb	98
42) 1,3-Dichloropropane	7.055	76	285781	11.11	ppb	100

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319016.d
Acq On : 19 Mar 2014 3:43 pm
Operator :
Sample : ICV0319W2
Misc : V3-124-3
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 16:06:00 2014
Quant Method : C:\msdchem\1\methods\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:16:40 2014
Response via : Initial Calibration

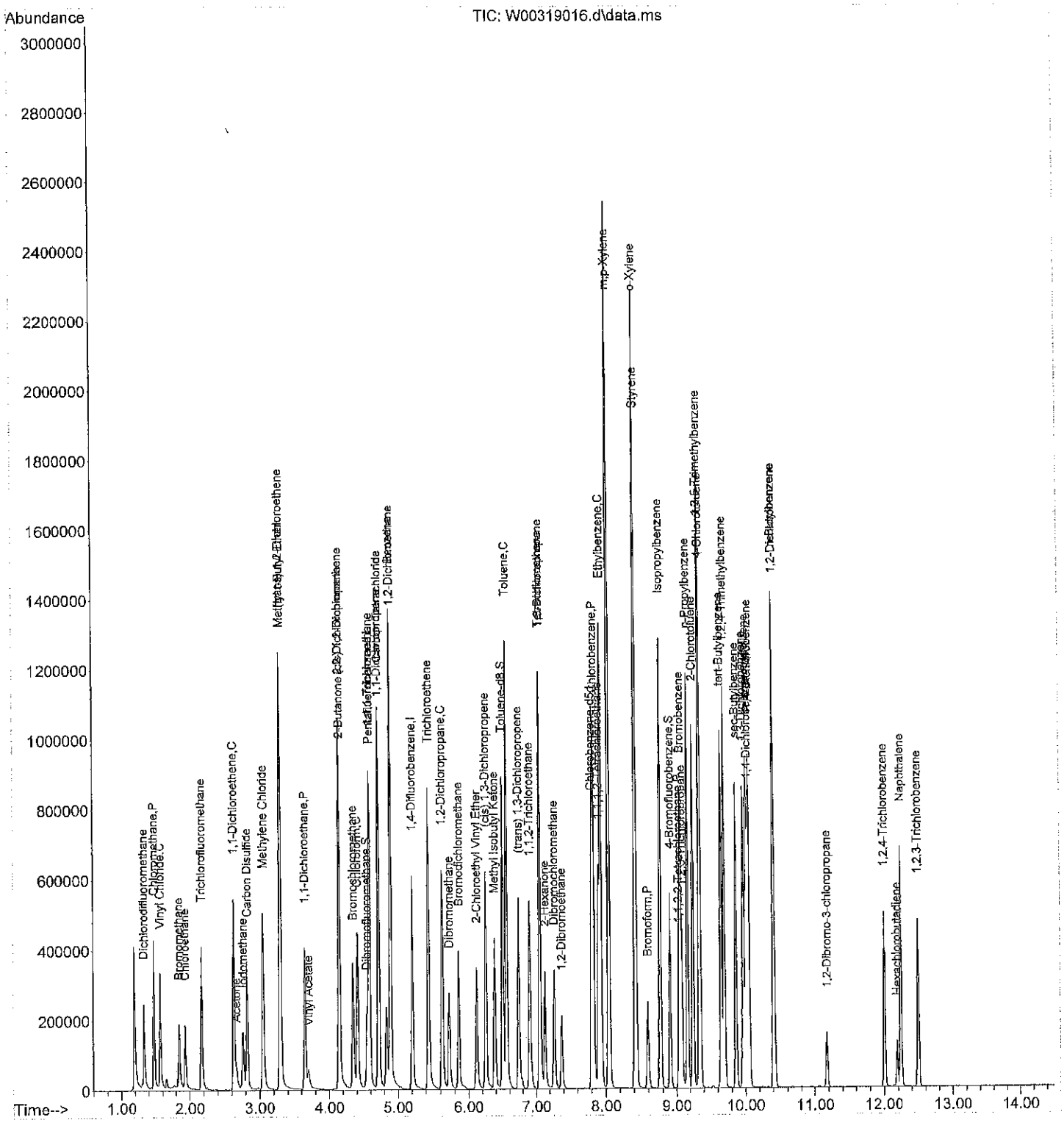
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) 2-Hexanone	7.128	43	238271	10.83	ppb		99
44) Dibromochloromethane	7.262	129	180644	11.64	ppb		100
45) 1,2-Dibromoethane	7.372	107	151617	11.33	ppb		99
46) Chlorobenzene	7.829	112	529039	12.18	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.903	133	172510	10.74	ppb		99
48) Ethylbenzene	7.933	91	930108	10.89	ppb		100
49) m,p-Xylene	8.043	91	1454952	22.82	ppb		100
50) o-Xylene	8.415	91	744336	11.71	ppb		100
51) Styrene	8.427	104	595818	11.03	ppb		100
52) Bromoform	8.591	173	125086	11.66	ppb		99
53) Isopropylbenzene	8.768	105	846386	12.07	ppb		99
56) Bromobenzene	9.055	156	200623	11.09	ppb		100
57) 1,1,2,2-Tetrachloroethane	9.030	83	126636	9.39	ppb		94
58) 1,2,3-Trichloropropane	9.079	75	188938	11.09	ppb	#	100
59) n-Propylbenzene	9.158	91	931318	11.94	ppb		100
60) 2-Chlorotoluene	9.244	126	195462	12.22	ppb		97
61) 4-Chlorotoluene	9.347	126	198035	11.96	ppb		98
62) 1,3,5-Trimethylbenzene	9.329	105	635014	10.91	ppb		98
63) tert-Butylbenzene	9.646	119	481349	11.93	ppb		98
64) 1,2,4-Trimethylbenzene	9.695	105	633011	10.66	ppb		100
65) sec-Butylbenzene	9.866	105	622443	11.97	ppb		100
66) 1,3-Dichlorobenzene	9.963	146	366873	11.86	ppb		98
67) p-Isopropyltoluene	10.006	119	484714	11.65	ppb		99
68) 1,4-Dichlorobenzene	10.049	146	361441	10.75	ppb		100
69) 1,2-Dichlorobenzene	10.414	146	358540	12.31	ppb		99
70) n-Butylbenzene	10.408	91	362003	10.46	ppb		100
71) 1,2-Dibromo-3-chloropr...	11.176	157	44437	11.89	ppb		97
72) 1,2,4-Trichlorobenzene	12.005	180	158321	10.69	ppb		99
73) Hexachlorobutadiene	12.188	225	27549	11.10	ppb		93
74) Naphthalene	12.249	128	570205	11.33	ppb		100
75) 1,2,3-Trichlorobenzene	12.487	180	154060	10.80	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140319\
Data File : W00319016.d
Acq On : 19 Mar 2014 3:43 pm
Operator :
Sample : ICV0319W2
Misc : V3-124-3
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 16:06:00 2014
Quant Method : C:\msdchem\1\methods\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:16:40 2014
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428002.d
Acq On : 28 Apr 2014 9:54 am
Operator :
Sample : CCV0428W1
Misc : V3-125-14
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 28 10:08:47 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	10.000	10.000	0.0	90	0.00
2		Dichlorodifluoromethane	10.000	7.220	27.8#	69	0.00
3	P	Chloromethane	10.000	8.645	13.6	81	0.00
4	C	Vinyl Chloride	10.000	8.889	11.1	87	0.00
5		Bromomethane	10.000	7.368	26.3#	77	0.00
6		Chloroethane	10.000	9.008	9.9	91	0.00
7		Trichlorofluoromethane	10.000	9.715	2.9	93	0.00
8	C	1,1-Dichloroethene	10.000	9.798	2.0	95	0.00
9		Acetone	10.000	9.052	9.5	95	0.00
10		Iodomethane	10.000	8.651	13.5	82	0.00
11		Carbon Disulfide	10.000	9.799	2.0	100	0.00
12		Methylene Chloride	10.000	9.613	3.9	95	0.00
13		(trans) 1,2-Dichloroethene	10.000	9.974	0.3	96	0.00
14		Methyl t-Butyl Ether	10.000	10.036	-0.4	96	0.00
15	P	1,1-Dichloroethane	10.000	9.971	0.3	95	0.00
16		Vinyl Acetate	10.000	24.406	-144.1#	239	0.00
17		2,2-Dichloropropane	10.000	10.511	-5.1	103	0.00
18		(cis) 1,2-Dichloroethene	10.000	9.937	0.6	95	0.00
19		2-Butanone	10.000	11.190	-11.9	97	0.00
20		Bromochloromethane	10.000	10.225	-2.2	98	0.00
21	C	Chloroform	10.000	10.154	-1.5	97	0.00
22		1,1,1-Trichloroethane	10.000	10.139	-1.4	97	0.00
23	S	Dibromofluoromethane	10.000	9.310	6.9	87	0.00
24		Carbon Tetrachloride	10.000	9.549	4.5	92	0.00
25		1,1-Dichloropropene	10.000	10.021	-0.2	97	0.00
26		Benzene	10.000	9.972	0.3	96	0.00
27		1,2-Dichloroethane	10.000	9.985	0.2	94	0.00
28	I	1,4-Difluorobenzene	10.000	10.000	0.0	88	0.00
29		Trichloroethene	10.000	8.711	12.9	80	0.00
30	C	1,2-Dichloropropane	10.000	10.376	-3.8	96	0.00
31		Dibromomethane	10.000	10.550	-5.5	98	0.00
32		Bromodichloromethane	10.000	10.649	-6.5	98	0.00
33		2-Chloroethyl Vinyl Ether	10.000	10.828	-8.3	96	0.00
34		(cis) 1,3-Dichloropropene	10.000	10.724	-7.2	100	0.00
35		Methyl Isobutyl Ketone	10.000	10.383	-3.8	95	0.00
36	S	Toluene-d8	10.000	9.461	5.4	86	0.00
37	C	Toluene	10.000	10.272	-2.7	97	0.00
38	I	Chlorobenzene-d5	10.000	10.000	0.0	100	0.00
39		(trans) 1,3-Dichloropropene	10.000	9.704	3.0	100	0.00
40		1,1,2-Trichloroethane	10.000	9.263	7.4	98	0.00
41		Tetrachloroethene	10.000	9.163	8.4	97	0.00
42		1,3-Dichloropropane	10.000	9.488	5.1	99	0.00
43		2-Hexanone	10.000	9.541	4.6	97	0.00
44		Dibromochloromethane	10.000	9.498	5.0	98	0.00
45		1,2-Dibromoethane	10.000	9.575	4.3	99	0.00
46	P	Chlorobenzene	10.000	9.541	4.6	98	0.00

Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428002.d
Acq On : 28 Apr 2014 9:54 am
Operator :
Sample : CCV0428W1
Misc : V3-125-14
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 28 10:08:47 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
47		1,1,1,2-Tetrachloroethane	10.000	9.345	6.5	96	0.00
48	C	Ethylbenzene	10.000	9.268	7.3	97	0.00
49		m,p-Xylene	20.000	18.788	6.1	97	0.00
50		o-Xylene	10.000	9.193	8.1	97	0.00
51		Styrene	10.000	9.369	6.3	97	0.00
52	P	Bromoform	10.000	9.491	5.1	95	0.00
53		Isopropylbenzene	10.000	9.228	7.7	96	0.00
54	S	4-Bromofluorobenzene	10.000	10.631	-6.3	107	0.00
55	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	105	0.00
56		Bromobenzene	10.000	8.650	13.5	95	0.00
57	P	1,1,2,2-Tetrachloroethane	10.000	12.162	-21.6#	137	0.00
58		1,2,3-Trichloropropane	10.000	8.676	13.2	95	0.00
59		n-Propylbenzene	10.000	8.693	13.1	96	0.00
60		2-Chlorotoluene	10.000	9.072	9.3	97	0.00
61		4-Chlorotoluene	10.000	8.810	11.9	98	0.00
62		1,3,5-Trimethylbenzene	10.000	8.625	13.8	96	0.00
63		tert-Butylbenzene	10.000	8.485	15.2	94	0.00
64		1,2,4-Trimethylbenzene	10.000	8.573	14.3	94	0.00
65		sec-Butylbenzene	10.000	8.546	14.5	94	0.00
66		1,3-Dichlorobenzene	10.000	8.585	14.1	96	0.00
67		p-Isopropyltoluene	10.000	8.589	14.1	94	0.00
68		1,4-Dichlorobenzene	10.000	8.678	13.2	95	0.00
69		1,2-Dichlorobenzene	10.000	8.803	12.0	95	0.00
70		n-Butylbenzene	10.000	8.676	13.2	97	0.00
71		1,2-Dibromo-3-chloropropane	10.000	9.116	8.8	96	0.00
72		1,2,4-Trichlorobenzene	10.000	8.131	18.7	89	0.00
73		Hexachlorobutadiene	10.000	8.887	11.1	95	0.00
74		Naphthalene	10.000	8.655	13.5	94	0.00
75		1,2,3-Trichlorobenzene	10.000	8.127	18.7	93	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428002.d
Acq On : 28 Apr 2014 9:54 am
Operator :
Sample : CCV0428W1
Misc : V3-125-14
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 28 10:08:47 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.586	168	254881	10.00	ppb	0.00
28) 1,4-Difluorobenzene	5.208	114	400499	10.00	ppb	0.00
38) Chlorobenzene-d5	7.799	117	370471	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	10.024	152	161844	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.543	111	106471	9.31	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 93.10%			
36) Toluene-d8	6.494	98	474522	9.46	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 94.60%			
54) 4-Bromofluorobenzene	8.902	95	212666	10.63	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 106.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.325	85	137617	7.22	ppb	100
3) Chloromethane	1.471	50	282029	8.65	ppb	100
4) Vinyl Chloride	1.562	62	213467	8.89	ppb	99
5) Bromomethane	1.843	96	66751	7.37	ppb	95
6) Chloroethane	1.934	64	113125	9.01	ppb	100
7) Trichlorofluoromethane	2.172	101	254091	9.72	ppb	99
8) 1,1-Dichloroethene	2.629	61	284654	9.80	ppb	100
9) Acetone	2.666	43	57318	9.05	ppb	93
10) Iodomethane	2.757	142	153472	8.65	ppb	99
11) Carbon Disulfide	2.818	76	449201	9.80	ppb	99
12) Methylene Chloride	3.044	49	291215	9.61	ppb	100
13) (trans) 1,2-Dichloroet...	3.294	61	283279	9.97	ppb	100
14) Methyl t-Butyl Ether	3.294	73	515235	10.04	ppb	99
15) 1,1-Dichloroethane	3.647	63	342837	9.97	ppb	98
16) Vinyl Acetate	3.696	43	480821	24.41	ppb	99
17) 2,2-Dichloropropane	4.147	77	271773	10.51	ppb	100
18) (cis) 1,2-Dichloroethene	4.141	61	325136	9.94	ppb	99
19) 2-Butanone	4.153	43	112420	11.19	ppb	98
20) Bromochloromethane	4.342	130	93974	10.22	ppb	98
21) Chloroform	4.409	83	286774	10.15	ppb	98
22) 1,1,1-Trichloroethane	4.574	97	272834	10.14	ppb	98
24) Carbon Tetrachloride	4.720	117	223625	9.55	ppb	98
25) 1,1-Dichloropropene	4.714	75	249005	10.02	ppb	98
26) Benzene	4.891	78	714357	9.97	ppb	99
27) 1,2-Dichloroethane	4.891	62	227661	9.99	ppb	99
29) Trichloroethene	5.440	130	188277	8.71	ppb	99
30) 1,2-Dichloropropane	5.622	63	206815	10.38	ppb	99
31) Dibromomethane	5.726	174	92621	10.55	ppb	98
32) Bromodichloromethane	5.854	83	220892	10.65	ppb	100
33) 2-Chloroethyl Vinyl Ether	6.116	63	127434	10.83	ppb	99
34) (cis) 1,3-Dichloropropene	6.250	75	299902	10.72	ppb	98
35) Methyl Isobutyl Ketone	6.378	43	280325	10.38	ppb	98
37) Toluene	6.555	91	759046	10.27	ppb	99
39) (trans) 1,3-Dichloropr...	6.738	75	248007	9.70	ppb	98
40) 1,1,2-Trichloroethane	6.903	97	141434	9.26	ppb	99
41) Tetrachloroethene	7.049	166	179581	9.16	ppb	99
42) 1,3-Dichloropropane	7.055	76	252701	9.49	ppb	100

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428002.d
Acq On : 28 Apr 2014 9:54 am
Operator :
Sample : CCV0428W1
Misc : V3-125-14
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 28 10:08:47 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration

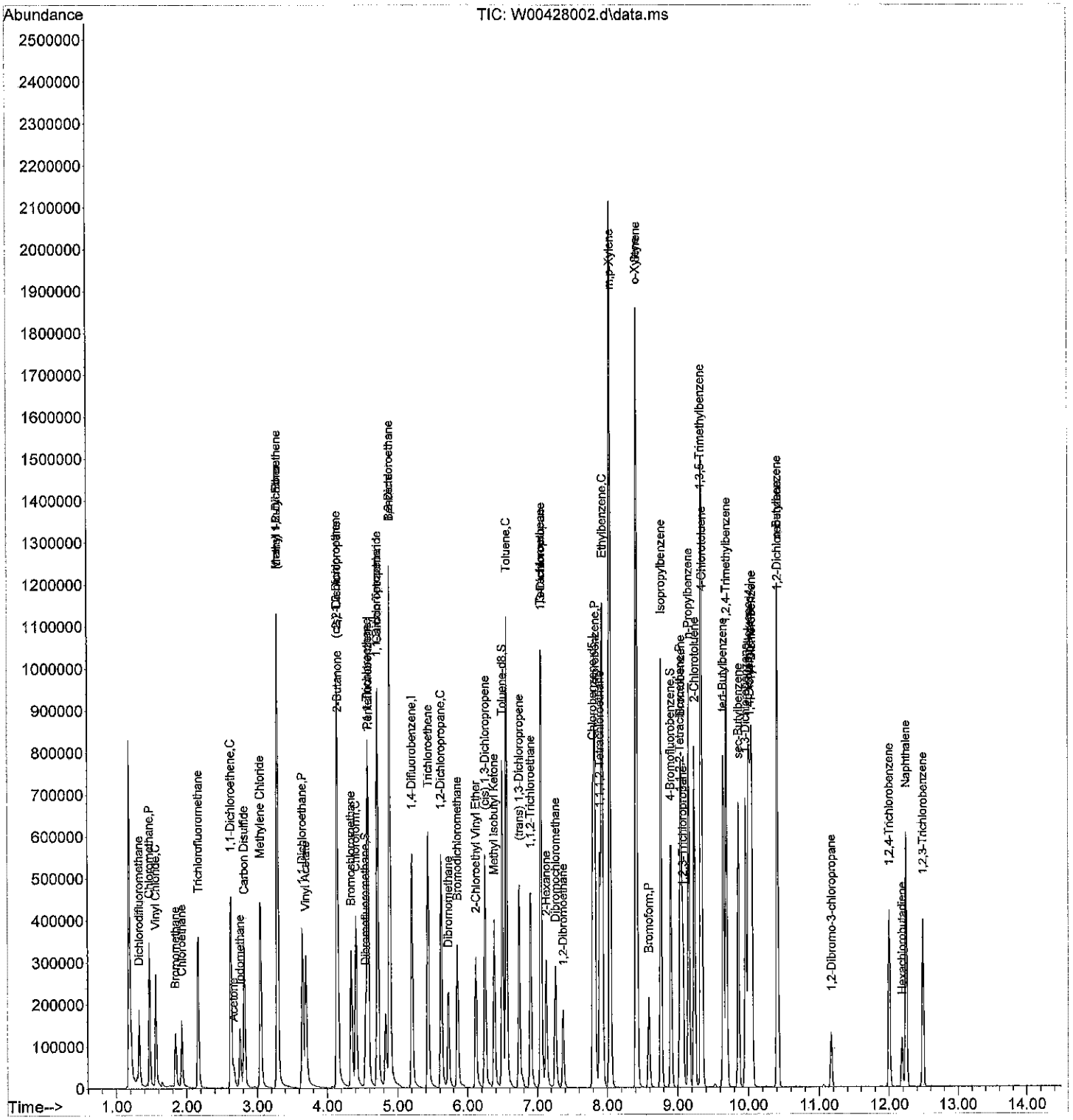
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) 2-Hexanone	7.128	43	217384	9.54	ppb		99
44) Dibromochloromethane	7.262	129	152667	9.50	ppb		99
45) 1,2-Dibromoethane	7.372	107	132744	9.57	ppb		99
46) Chlorobenzene	7.829	112	429275	9.54	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.896	133	155521	9.34	ppb		100
48) Ethylbenzene	7.933	91	820338	9.27	ppb		99
49) m,p-Xylene	8.043	91	1240656	18.79	ppb		98
50) o-Xylene	8.415	91	605347	9.19	ppb		99
51) Styrene	8.421	104	524305	9.37	ppb		100
52) Bromoform	8.591	173	105507	9.49	ppb		99
53) Isopropylbenzene	8.768	105	670134	9.23	ppb		99
56) Bromobenzene	9.049	156	170856	8.65	ppb		99
57) 1,1,2,2-Tetrachloroethane	9.036	83	179140	12.16	ppb		99
58) 1,2,3-Trichloropropane	9.079	75	161339	8.68	ppb	#	100
59) n-Propylbenzene	9.158	91	740185	8.69	ppb		98
60) 2-Chlorotoluene	9.244	126	158408	9.07	ppb		100
61) 4-Chlorotoluene	9.347	126	159272	8.81	ppb		98
62) 1,3,5-Trimethylbenzene	9.329	105	548205	8.63	ppb		99
63) tert-Butylbenzene	9.646	119	373786	8.48	ppb		100
64) 1,2,4-Trimethylbenzene	9.695	105	555774	8.57	ppb		99
65) sec-Butylbenzene	9.866	105	485291	8.55	ppb		100
66) 1,3-Dichlorobenzene	9.963	146	290045	8.59	ppb		99
67) p-Isopropyltoluene	10.006	119	390177	8.59	ppb		98
68) 1,4-Dichlorobenzene	10.048	146	318623	8.68	ppb		99
69) 1,2-Dichlorobenzene	10.414	146	279827	8.80	ppb		97
70) n-Butylbenzene	10.408	91	327790	8.68	ppb		100
71) 1,2-Dibromo-3-chloropr...	11.176	157	37205	9.12	ppb		99
72) 1,2,4-Trichlorobenzene	12.005	180	131499	8.13	ppb		96
73) Hexachlorobutadiene	12.188	225	24083	8.89	ppb		98
74) Naphthalene	12.243	128	475596	8.66	ppb		99
75) 1,2,3-Trichlorobenzene	12.487	180	126555	8.13	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428002.d
Acq On : 28 Apr 2014 9:54 am
Operator :
Sample : CCV0428W1
Misc : V3-125-14
ALS Vial : 2 Sample Multiplier: 1

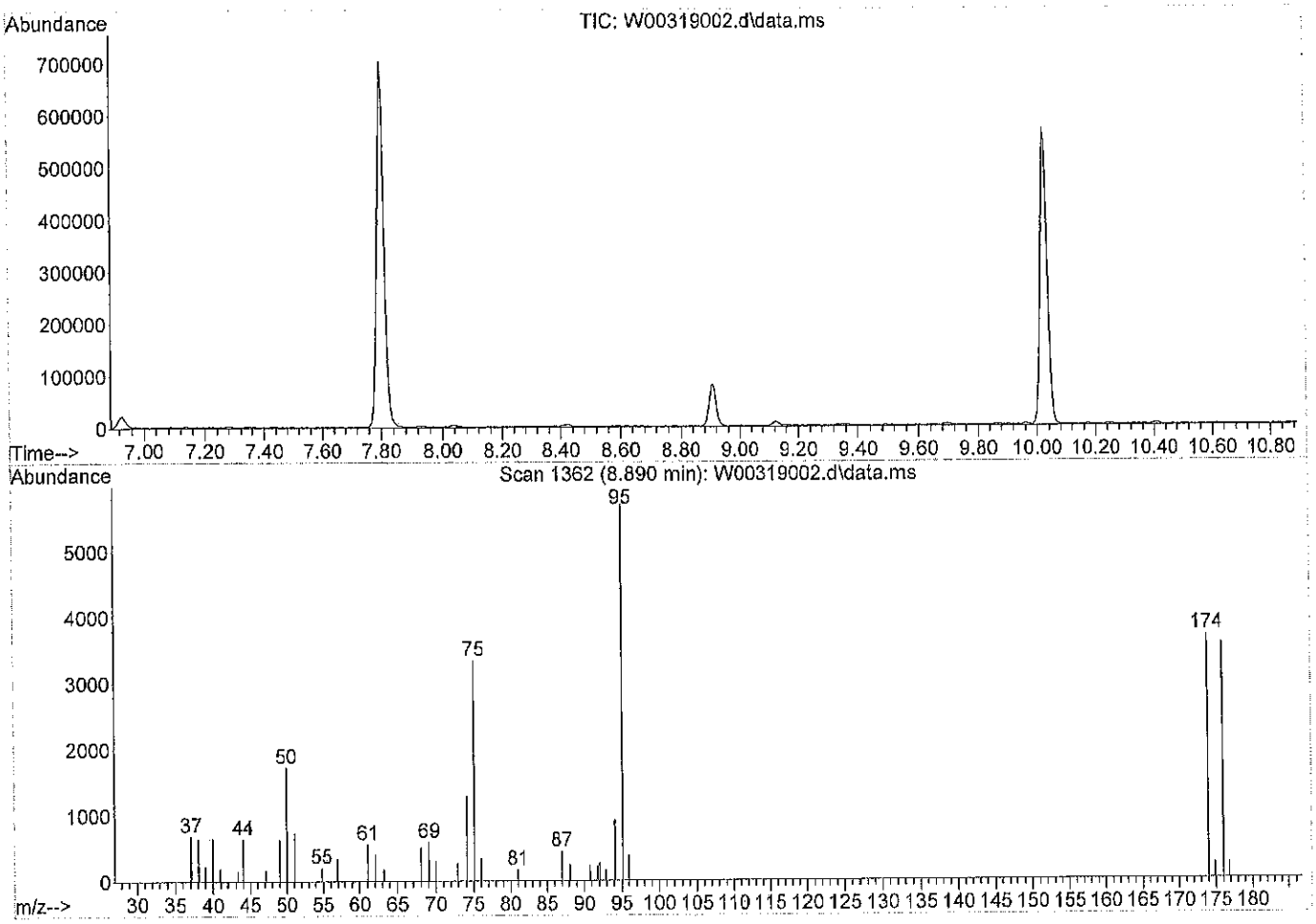
Quant Time: Apr 28 10:08:47 2014
Quant Method : C:\MSDCHEM\1\METHODS\W140319W.M
Quant Title :
QLast Update : Wed Mar 19 15:12:21 2014
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\W140319\Snapshot\
Data File : W00319002.d
Acq On : 19 Mar 2014 9:22 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-4
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\W140318W.M
Title :
Last Update : Wed Mar 19 08:39:28 2014



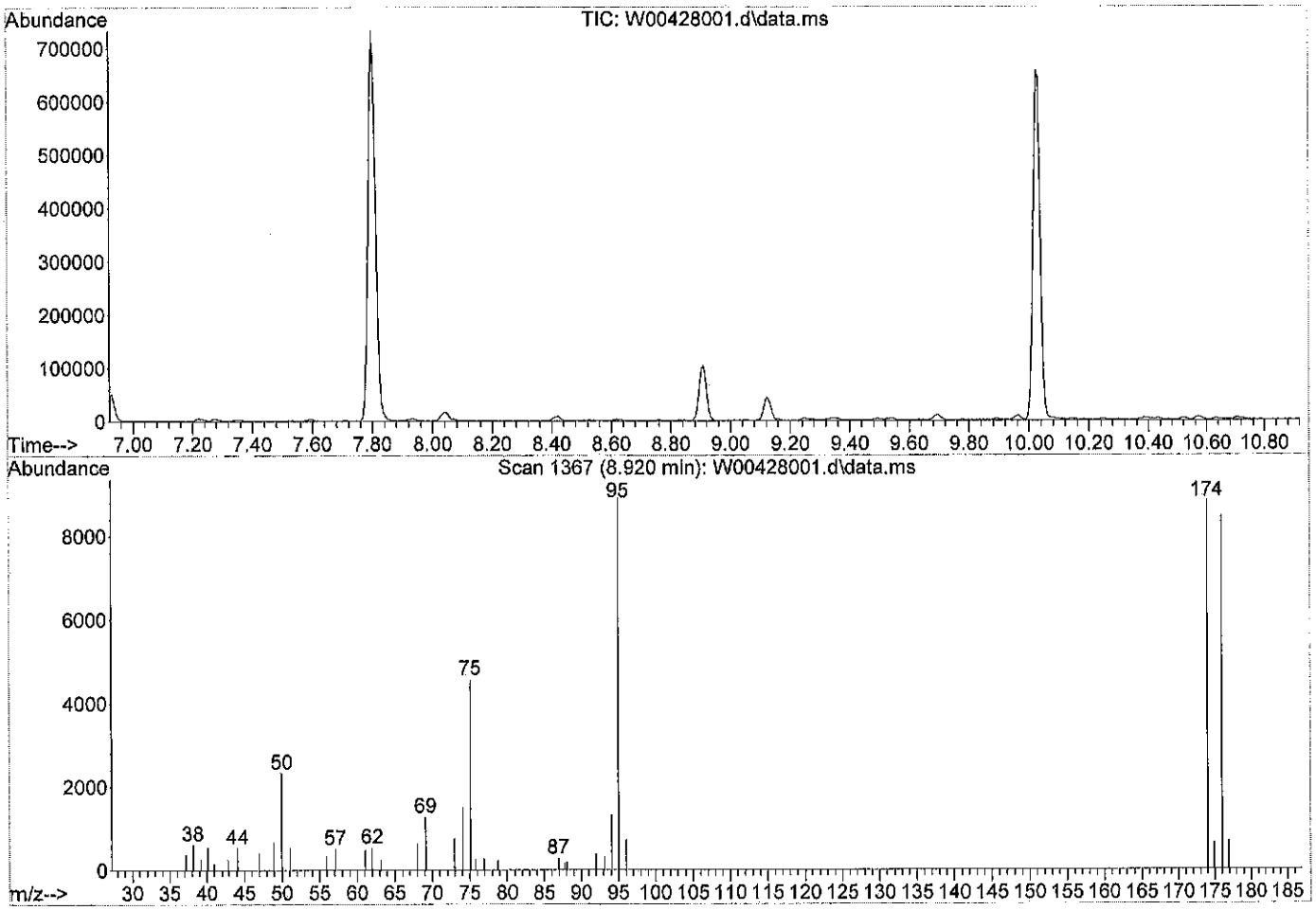
Spectrum Information: Scan 1362

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	30.2	1723	PASS
75	95	30	60	58.6	3344	PASS
95	95	100	100	100.0	5704	PASS
96	95	5	9	6.6	379	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	65.0	3706	PASS
175	174	5	9	6.9	257	PASS
176	174	95	101	96.6	3580	PASS
177	176	5	9	6.9	246	PASS

Data Path : X:\VOLATILE\WALDO\DATA\W140428\
Data File : W00428001.d
Acq On : 28 Apr 2014 9:08 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-4
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\W140319W.M
Title :
Last Update : Wed Mar 19 15:16:40 2014



Spectrum Information: Scan 1367

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.0	2323	PASS
75	95	30	60	51.3	4574	PASS
95	95	100	100	100.0	8921	PASS
96	95	5	9	8.0	718	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	99.3	8862	PASS
175	174	5	9	7.3	646	PASS
176	174	95	101	95.8	8491	PASS
177	176	5	9	8.2	693	PASS

GC/MS QA-QC Check Report

Tune File : X:\VOLATILE\WALDO\DATA\W140428\W00428001.d
Tune Time : 28 Apr 2014 9:08 am

Daily Calibration File : X:\VOLATILE\WALDO\DATA\W140428\W00428002.d

						254881	400499	370471
						161844		
File	Sample	Surrogate Recovery %				Internal Standard Responses		
W00428009.d								
	SB0428W2	103	97	111		217647	360461	329235
					139122			
W00428010.d								
	SBD0428W2	98	98	111		223009	368300	340799
					142852			
W00428011.d								
	MB0428W2	93	96	108		223512	366350	341488
					151249			
W00428012.d								
	04-168-01c	104	98	107		225297	381505	363021
					149199			
W00428013.d								
	04-168-02c	106	98	109		218761	374106	350775
					148475			
W00428014.d								
	04-168-03c	105	97	105		228099	382310	367102
					152757			
W00428015.d								
	04-168-04c	106	99	106		225247	384762	362762
					150788			
W00428016.d								
	04-168-05c	104	98	108		223085	372212	352171
					147299			
W00428017.d								
	04-168-06c	105	98	107		225967	379382	359993
					155436			
W00428018.d								
	04-168-07c	104	95	109		220765	376887	354542
					156079			
W00428019.d								
	04-168-08a	103	100	110		211103	355365	332218
					138416			

(fails) - fails 12hr time check * - fails criteria

Created: Tue Apr 29 07:02:33 2014 Waldo

Sequence Name: C:\msdchem\1\sequence\W140319.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\W140319\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info
1) Sample	1	BLANK
Datafile		W00319001
Method		W140318W
2) Sample	2	50ng bfb mass tune
Datafile		W00319002
Method		W140318W
3) Sample	3	ICV0319W1
Datafile		W00319003
Method		W140318W
4) Sample	4	CCV0319W1
Datafile		W00319004
Method		W140318W
5) Sample	5	BLANK
Datafile		W00319005
Method		W140318W
6) Sample	6	BLANK
Datafile		W00319006
Method		W140318W
7) Sample	7	0.2 PPB ICAL
Datafile		W00319007
Method		W140318W
8) Sample	8	1.0 PPB ICAL
Datafile		W00319008
Method		W140318W
9) Sample	9	2.0 PPB ICAL
Datafile		W00319009
Method		W140318W
10) Sample	10	5.0 PPB ICAL
Datafile		W00319010
Method		W140318W
11) Sample	11	10 PPB ICAL
Datafile		W00319011
Method		W140318W
12) Sample	12	25 PPB ICAL
Datafile		W00319012
Method		W140318W
13) Sample	13	BLANK
Datafile		W00319013
Method		W140318W
14) Sample	14	50 PPB ICAL
Datafile		W00319014
Method		W140318W
15) Sample	15	BLANK
Datafile		W00319015
Method		W140318W
16) Sample	16	ICV0319W2
Datafile		W00319016
Method		W140318W
17) Sample	17	BLANK
Datafile		W00319017
Method		W140318W
18) Sample	18	CCV0319W2
Datafile		W00319018
Method		W140319W

Sequence Name: C:\msdchem\1\sequence\W140428.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\W140428\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	50ng bfb mass tune
	Datafile	W00428001
	Method	W140319W
2)	Sample 2	CCV0428W1
	Datafile	W00428002
	Method	W140319W
3)	Sample 3	BLANK
	Datafile	W00428003
	Method	W140319W
4)	Sample 4	04-228-01a 1:100 SCREEN
	Datafile	W00428004
	Method	W140319W
5)	Sample 5	04-228-02a 1:100 SCREEN
	Datafile	W00428005
	Method	W140319W
6)	Sample 6	04-228-03a 1:100 SCREEN
	Datafile	W00428006
	Method	W140319W
7)	Sample 7	04-228-04a 1:100 SCREEN
	Datafile	W00428007
	Method	W140319W
8)	Sample 8	04-228-05a 1:100 SCREEN
	Datafile	W00428008
	Method	W140319W
9)	Sample 9	SB0428W2
	Datafile	W00428009
	Method	W140319W
10)	Sample 10	SBD0428W2
	Datafile	W00428010
	Method	W140319W
11)	Sample 11	MB0428W2
	Datafile	W00428011
	Method	W140319W
12)	Sample 12	04-168-01c
	Datafile	W00428012
	Method	W140319W
13)	Sample 13	04-168-02c
	Datafile	W00428013
	Method	W140319W
14)	Sample 14	04-168-03c
	Datafile	W00428014
	Method	W140319W
15)	Sample 15	04-168-04c
	Datafile	W00428015
	Method	W140319W
16)	Sample 16	04-168-05c
	Datafile	W00428016
	Method	W140319W
17)	Sample 17	04-168-06c
	Datafile	W00428017
	Method	W140319W
18)	Sample 18	04-168-07c
	Datafile	W00428018
	Method	W140319W

19) Sample	19	04-168-08a
Datafile		W00428019
Method		W140319W

OnSite Environmental Inc.

WATER EXTRACTION LOG

Instrument Run #: W140428
Date: 4-28-14

Int. Std./Surr. Stock#: V3-123-3 / V3-123-4
Matrix Spike Stock#: V312517

# of Sample	Date	Sample I.D.	Volume	pH of Sample	Analyst	Miscellaneous
	4-28-14	MB042828W2	25mL	7	SD	
		SBM20W2		7		
		SBD042828W2		7		
1		04.168-01c		2		
2		-02c		2		
3		-03c		2		
4		-04c		2		
5		-05c		2		
6		-06c		2		
7		-07c		2		
8		-08a		2		

SD 4/28/14

TITLE

PROJECT

Continued from page 114

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
	VOC ADD'S	V3-115-1							10-1-13	SD
			M-8260-ADD-10X Method 8260 Additions 2.0 mg/mL in MeOH Lot: 213091338 Exp: Jan 25,2014 — AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com — 1 mL — 8 comps. — HIGHLY FLAMMABLE — FOR LABORATORY USE ONLY — WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. — STORAGE Freeze (<-10° C) — Danger				discarded SD 11-19-13
5										
	250 ppm ICAL	V3-115-2	V3-114-4	2000 ppm	25 mL	1 mL	250 ppm	MeOH	10-1-13	SD
			V3-114-16							
			V3-115-1							
10	50 ppm ICAL	V3-115-3	V3-115-2	250 ppm	200 µL	1mL	50 ppm	MeOH	10-1-13	SD
	10 ppm ICAL	V3-115-4	V3-115-3	50 ppm	200 µL	1mL	10 ppm	MeOH	10-1-13	SD
	5 ppm ICAL	V3-115-5	V3-115-3	50 ppm	100 µL	1mL	5 ppm	MeOH	10-1-13	SD
	1 ppm ICAL	V3-115-6	V3-115-3	50 ppm	20 µL	1mL	1 ppm	MeOH	10-1-13	SD
	50 ppm SS (trace)	V3-115-7	V3-113-16	2000 ppm	25 µL	1mL	50 ppm	MeOH	10-2-13	SD
15	50 ppm ICV	V3-115-8	V3-101-7	2000 ppm	25 µL	1mL	50 ppm	MeOH	10-2-13	SD
			V3-101-8							
			V3-101-9							
	50 ppm CCV	V3-115-9	V3-114-4	2000 ppm	25 µL	1mL	50 ppm	MeOH	10-2-13	SD
			V3-114-16							
20			V3-115-1							
	2000 ppm SS	V3-115-10								
			M-8240/60-SS-10X Surrogate Standard VOA Mix 2.0 mg/mL in MeOH Lot: 212051380 Exp: Jun 1,2022 — AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com — 1 mL — 4 comps. — HIGHLY FLAMMABLE — FOR LABORATORY USE ONLY — STORAGE Ambient							
	250 ppm SS	V3-115-11	V3-113-16 + V3-115-10	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-7-13	SD
	250 ppm IS	V3-115-12	V3-114-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-8-13	SD
	LCS 50 ppm SS	V3-115-13	V3-115-10	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	SD
	50 ppm ICV	V3-115-14	V3-114-14	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	SD
30	.05 ppm ICAL	V3-115-15	V3-115-6	1 ppm	.050 mL	1 mL	.050 ppm	MeOH	10-9-13	SD
	50 ppm CCV	V3-115-16	V3-114-4	2000 ppm	25 µL	1mL	50 ppm	MeOH	10-10-13	SD
			V3-114-16							
			V3-115-1							
	2500 ppm MS	V3-115-17								
35			CLP-003-R-10X Purgeable Organic Matrix Spiking Soln. 2.5 mg/mL in MeOH Lot: 212011385 Exp: Feb 6,2022 — AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com — 1 mL — 5 comps. — HIGHLY FLAMMABLE — FOR LABORATORY USE ONLY — WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. — STORAGE Freeze (<-10° C) — Danger				10-10-13	SD

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SIGNATURE

DISCLOSED TO AND UNDERSTOOD BY | DATE | PROPRIETARY INFORMATION

TITLE **PROJECT**

Continued from page 120

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
	2000 ppm IS	V3-121-1							2-3-14	SD
5										
	250 ppm IS	V3-121-2	V3-120-8 + V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-3-14	SD
	50 ppm IS	V3-121-3	V3-120-8 + V3-121-1	2000 ppm	20 µL	1 mL	50 ppm	MeOH	2-3-14	SD
10	~~2000 ppm SS~~	V3-121-4							2-4-14	SD
	250 ppm SS	V3-121-13 + V3-121-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	MeOH	2-4-14	SD
15	250 ppm SS	V3-121-5	V3-120-13 + V3-121-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-4-14	SD
	~~VOC Liquids~~	V3-121-6							2-5-14	SD
20										
	VOC ADD IS	V3-121-7							2-5-14	SD
25										
	~~VOC GASES~~	V3-121-8							2-5-14	SD
30	250 ppm ICAL	V3-121-9	V3-121-6	2000 ppm	125 µL	1 mL	250 ppm	MeOH	2-5-14	SD
			V3-121-7							
			V3-121-8							
	50 ppm ICAL	V3-121-10	V3-121-9	250 ppm	200 µL	1 mL	50 ppm	MeOH	2-5-14	SD
	10 ppm ICAL	V3-121-11	V3-121-10	50 ppm	200 µL	1 mL	10 ppm	MeOH	2-5-14	SD
35	5 ppm ICAL	V3-121-12	V3-121-10	50 ppm	100 µL	1 mL	5 ppm	MeOH	2-5-14	SD

Continued to page 122

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
~~Surrogate~~ Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 212051380 4 comps.
Exp: Jun 1,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
~~STORAGE Ambient~~
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 213121006 8 comps.
Exp: Apr 3,2014 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502B-10X 1 mL
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424 6 comps.
Exp: May 2,2016 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

V3 - 122
BOOK PAGE

TITLE

PROJECT

Continued from page 12

ANALYTE	LAB ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Initials
~~1 ppm ICAL~~	~~V3-122-1~~	~~V3-121-10~~	~~50 ppm~~	~~20 mL~~	~~1 mL~~	~~1 ppm~~	~~MeOH~~	~~2-5-14~~	~~SD~~
~~5 ppm ICAL~~	~~V3-122-2~~	~~V3-121-~~	~~1 ppm~~	~~5 mL~~	~~0.5 mL~~	~~0.5 ppm~~	~~MeOH~~	~~2-5-14~~	~~SD~~
ICV VOC Liquids	V3-122-3								
ICV VOC ADDs	V3-122-4								
ICV VOC GASES	V3-122-5								
50 ppm ICV	V3-122-6	V3-122-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-5-14	SD
		V3-122-4	"	"	"	"	"	"	"
		V3-122-5	"	"	"	"	"	"	"
100 ppm ACRYL/DCB	V3-122-7	V3-117-11	100 ppm	500 µL	1 mL	100 ppm	MeOH	2-5-14	SD
		V3-117-12	100 ppm	500 µL					
50 ppm ACRYL/DCB	V3-122-8	V3-122-7	100 ppm	500 mL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ACRYL/DCB	V3-122-9	V3-122-8	50 ppm	200 µL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ACRYL/DCB	V3-122-10	V3-122-8	50 ppm	100 µL	1 mL	5 ppm	MeOH	2-5-14	SD
~~50 ppm CCV~~	~~V3-122-11~~	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-7-14	SD
		V3-121-7	"	"	"	"	"	"	"
		V3-121-8	"	"	"	"	"	"	"
~~250 ppm IS~~	~~V3-122-12~~	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-10-14	SD
~~250 ppm SS~~	~~V3-122-13~~	V3-121-11	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-18-14	SD
~~2000 ppm IS~~	~~V3-122-14~~							2-24-14	SD
250 ppm IS	V3-122-15	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-24-14	SD
		V3-122-14	"	"	"	"	"	"	"

Continued to page 123

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 213091216 55 comps.
Exp: Sep 19,2016 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214011413 8 comps.
Exp: Jun 3,2014 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-502B-10X 1 mL
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213071142 6 comps.
Exp: Jul 17,2016 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE

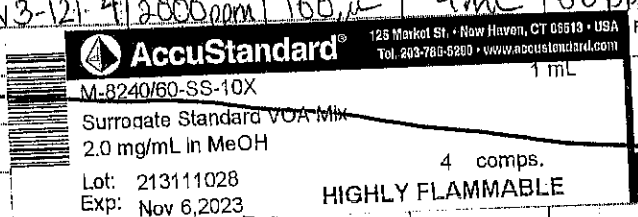
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

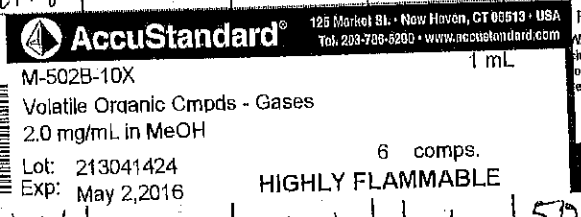
SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

Continued from page (22)

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
50 ppm SS (tune)	V3-123-1	V3-121-4	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-26-14	SD
50 ppm CCV	V3-123-2	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-27-14	SD
		V3-121-7							
		V3-121-8							
waldo 50 ppm IS	V3-123-3	V3-122-14	2000 ppm	100 µL	4 mL	50 ppm	MeOH	2-27-14	EEN
waldo 50 ppm SS	V3-123-4	V3-121-4	2000 ppm	100 µL	4 mL	50 ppm	MeOH	2-27-14	EEN
~~2000 ppm SS~~	V3-123-5							2-28-14	SD
								spot	
								3-2-14	
Albert ~~250 ppm SS~~	V3-123-6	V3-121-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-28-14	SD
		V3-123-5							
		V3-122-14	~~2000 ppm~~	~~625 µL~~	~~25 mL~~	~~50 ppm~~	~~MeOH~~	3-6-14	SD
Morris 50 ppm IS	V3-123-7								
~~2000 ppm IS~~	V3-123-8							3-10-14	SD
								spot	
								SD 3-11-14	
Albert 250 ppm IS	V3-123-9	V3-122-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
		V3-123-8							
Albert ~~250 ppm SS~~	~~V3-123-10~~	~~V3-123-5~~	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
50 ppm CCV	V3-123-11	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-10-14	SD
		V3-121-7							
		V3-121-8							
~~50 ppm CCV~~	V3-123-12	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-13-14	SD
		V3-121-7							
		V3-121-8							
VOC GASES	V3-123-13							3-13-14	SD
50 ppm CCV	V3-123-14	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-13-14	SD
		V3-121-7							
		V3-123-13							





Continued to page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

V3 -124
BOOK PAGE

TITLE

PROJECT

Continued from page 123	Lab ID	Stock ID	Stock conc.	Stock Vol	Final Vol	Final conc.	solvent	Date	Initials
Analyte									
250 ppm IS/SS	V3-124-1	V3-123-8	2000 ppm	250 µL	2 mL	250 ppm	MeOH	3-14-14	SD
		V3-128-5		250 µL					
~~50 ppm MS~~	~~V3-124-2~~	~~V3-115-7~~	~~7500 ppm~~	~~20 mL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~ discarded 3-24-14
50 ppm ICV	V3-124-3	V3-123-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-19-14	SD
		V3-123-4							
		V3-123-5							
VOC Liquids	V3-124-4							3-19-14	SD
VOC ADD's	V3-124-5							3-19-14	SD
250 ppm ICAL	V3-124-6	V3-123-13	2000 ppm	125 mL	1 mL	250 ppm	MeOH	3-19-14	SD
		V3-124-4							
		V3-124-5							
50 ppm ICAL	V3-124-7	V3-124-6	250 ppm	200	1 mL	50 ppm	MeOH	3-19-14	SD
10 ppm ICAL	V3-124-8	V3-124-7	50 ppm	200	1 mL	10 ppm	MeOH	3-19-14	SD
5 ppm ICAL	V3-124-9	V3-124-7	50 ppm	100	1 mL	5 ppm	MeOH	3-19-14	SD
1 ppm ICAL	V3-124-10	V3-124-7	50 ppm	20	1 mL	1 ppm	MeOH	3-19-14	SD
~~CCV 50 ppm~~	~~V3-124-11~~	~~V3-123-13~~	~~2000 ppm~~	~~25 mL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~ discarded 3-20-14
		V3-124-4							
		V3-124-5							
2000 ppm SS	V3-124-12							3-21-14	SD
~~250 ppm IS~~	~~V3-124-13~~	~~V3-123-8~~	~~2000 ppm~~	~~500 mL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~ discarded 3-31-14
~~250 ppm SS~~	~~V3-124-14~~	~~V3-123-5~~	~~2000 ppm~~	~~500 mL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~ spiked 3-31-14
		V3-124-12							
2000 ppm IS	V3-124-15							3-31-14	SD

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214021286 8 comps.
Exp: Jun 28,2014 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Storage: Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6,2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

SIGNATURE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Continued to page 125

TITLE **PROJECT**

Continued from page 124 3/31/14

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INIT.
Albert	250 ppm IS	V3-125-1	V3-123-8							
			V3-124-15	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-31-14	SD
Albert	250 ppm SS	V3-125-2	V3-124-12	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-31-14	SD
Albert	250 ppm IS	V3-125-3	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-9-14	SD
	50 ppm CCV	V3-125-4	V3-123-13	2000 ppm	35 µL	1 mL	50 ppm	MeOH	4-9-14	SD
			V3-124-4							
			V3-124-5							
10	50 ppm M.S.	V3-125-5	V3-115-17	2500 ppm	20 µL	1 mL	50 ppm	MeOH	4-9-14	SD
Albert	250 ppm SS	V3-125-6	V3-124-12	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-14-14	SD
Albert	250 ppm IS	V3-125-7	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-16-14	SD
	2000 ppm IS	V3-125-8							4-21-14	SD
15										
	2000 ppm SS	V3-125-9							4-21-14	SD
									spiked	4/25
20										
Albert	250 ppm IS	V3-125-10	V3-124-15	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-21-14	SD
Albert	250 ppm SS	V3-125-11	V3-125-9	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-21-14	SD
Morris	50 ppm IS	V3-125-12	V3-125-8	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
Morris	50 ppm SS	V3-125-13	V3-125-9	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
25	50 ppm CCV	V3-125-14	V3-123-13	2000 ppm	25 mL	1 mL	50 ppm	MeOH	4-28-14	SD
			V3-124-4							
			V3-124-5							
Albert	250 ppm IS	V3-125-15	V3-125-8	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-25-14	SD
Albert	250 ppm SS	V3-125-16	V3-125-9	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-25-14	SD
30	50 ppm M.S.	V3-125-17	V3-115-17	2500 ppm	20 µL	1 mL	50 ppm	MeOH	4-25-14	SD
	2000 ppm SS	V3-125-18							4-28-14	SD
Albert 35	250 ppm SS	V3-125-19	V3-125-9 + V3-125-18	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4-28-14	SD

Continued to page 126

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19, 2022
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
Storage: Ambient
2 Danger!

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6, 2023
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger!

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6, 2023
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger!

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE PROPRIETARY INFORMATION

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 1, 2014

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0180-121-09
Laboratory Reference No. 1404-179

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on April 22, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-179
Project: 0180-121-09

Case Narrative

Samples were collected on April 21, 2014 and received by the laboratory on April 22, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-179
Project: 0180-121-09

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SEEP-5-140421	04-179-01	Water	4-21-14	4-22-14	
SEEP-3-140421	04-179-02	Water	4-21-14	4-22-14	
SEEP-2-140421	04-179-03	Water	4-21-14	4-22-14	
PZ-715-140421	04-179-04	Water	4-21-14	4-22-14	
PZ-709-140421	04-179-05	Water	4-21-14	4-22-14	
PZ-704-140421	04-179-06	Water	4-21-14	4-22-14	
SEEP-1-140421	04-179-07	Water	4-21-14	4-22-14	
DUP-1-140421	04-179-08	Water	4-21-14	4-22-14	
TB-1-140421	04-179-09	Water	4-21-14	4-22-14	

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-179
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SEEP-5-140421**					
Laboratory ID:	04-179-01					
Vinyl Chloride	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Trichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*96*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-179
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SEEP-3-140421**					
Laboratory ID:	04-179-02					
Vinyl Chloride	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Trichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*104*	*62-122*				
Toluene-d8	*108*	*70-120*				
4-Bromofluorobenzene	*88*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-179
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SEEP-2-140421**					
Laboratory ID:	04-179-03					
Vinyl Chloride	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Trichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*62-122*				
Toluene-d8	*98*	*70-120*				
4-Bromofluorobenzene	*96*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-179
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PZ-715-140421**					
Laboratory ID:	04-179-04					
Vinyl Chloride	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Trichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*62-122*				
Toluene-d8	*98*	*70-120*				
4-Bromofluorobenzene	*97*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-179
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PZ-709-140421**					
Laboratory ID:	04-179-05					
Vinyl Chloride	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Trichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*99*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-179
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PZ-704-140421**					
Laboratory ID:	04-179-06					
Vinyl Chloride	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Trichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*111*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*99*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-179
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SEEP-1-140421**					
Laboratory ID:	04-179-07					
Vinyl Chloride	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Trichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*105*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*98*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-179
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DUP-1-140421**					
Laboratory ID:	04-179-08					
Vinyl Chloride	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Trichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*102*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*98*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-179
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TB-1-140421**					
Laboratory ID:	04-179-09					
Vinyl Chloride	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Trichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*62-122*				
Toluene-d8	*102*	*70-120*				
4-Bromofluorobenzene	*99*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-179
Project: 0180-121-09

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0430W1					
Vinyl Chloride	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Trichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-179
Project: 0180-121-09

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0430W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.9**	**11.0**	10.0	10.0	109	110	63-142	1	17	
Benzene	**9.89**	**10.3**	10.0	10.0	99	103	78-125	4	15	
Trichloroethene	**9.60**	**9.67**	10.0	10.0	96	97	80-125	1	15	
Toluene	**9.88**	**10.1**	10.0	10.0	99	101	80-125	2	15	
Chlorobenzene	**10.7**	**10.8**	10.0	10.0	107	108	80-140	1	15	
Surrogate:										
Dibromofluoromethane					*94*	*98*	*62-122*			
Toluene-d8					*98*	*101*	*70-120*			
4-Bromofluorobenzene					*95*	*95*	*71-120*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

16

Company: GEOENGINEERS
Project Number: 0180-121-09
Project Name: PALERMO
Project Manager: NICK ROHRBACH
Sampled by: LARA LINDE/BRANDON BREAKFIELD

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 04-179

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	PHD. LIST VOCS					% Moisture
1	SEEP-5-140421	4/21/14	0930	W	3																	X					
2	SEEP-3-140421	4/21/14	1005	W	3																	X					
3	SEEP-2-140421	4/21/14	1050	W	3																	X					
4	PZ-715-140421	4/21/14	1125	W	3																	X					
5	PZ-709-140421	4/21/14	1200	W	3																	X					
6	PZ-704-140421	4/21/14	1240	W	3																	X					
7	SEEP-1-140421	4/21/14	1310	W	3																	X					
8	DUP-1-140421	4/21/14		W	3																	X					
9	TB-1-140421	4/21/14		W	2																	X					

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEOENGINEERS	4-22-14	835	
Received	Vam	Spdy	"	835	
Relinquished	"	"	"	1215	
Received		OSE	4/22/14	1215	
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 0180-121-09

OnSite Project Number: 04-179

Initiated by: MM

Date Initiated: 4/22/14

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 1		
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A			
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	Yes	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	Yes	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and air bubbles?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

2.5) Sample 9) TB-1-140421 4/21/14 only 2 containers

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

//SERVER\OSE\Administration\forms\cooler_checklist.xls

Complete Data Package

- Volatiles by EPA 8260C

Volatiles by EPA 8260C Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430015.d
Acq On : 30 Apr 2014 1:32 pm
Operator :
Sample : 04-179-01b
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 30 14:05:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

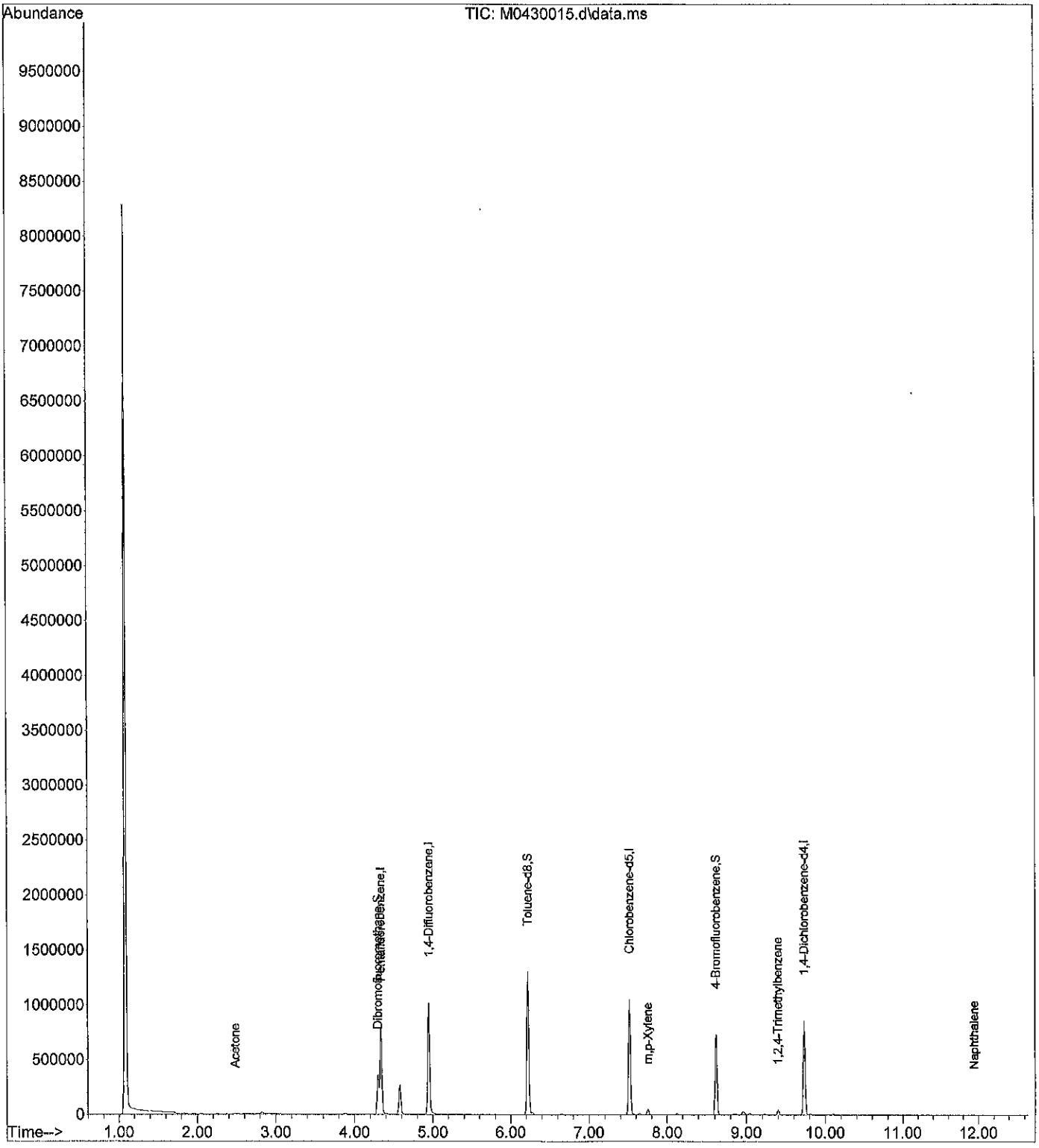
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	525715	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	752644	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	590528	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	242257	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	196824	10.35	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 103.50%			
36) Toluene-d8	6.220	98	815851	9.91	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.10%			
54) 4-Bromofluorobenzene	8.622	95	244804	9.65	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 96.50%			
Target Compounds						Qvalue
9) Acetone	2.483	43	3071	0.90	ppb	# 87
49) m,p-Xylene	7.756	91	26511	0.28	ppb	97
64) 1,2,4-Trimethylbenzene	9.402	105	24979	0.30	ppb	100
74) Naphthalene	11.944	128	1842	0.83	ppb	# 70

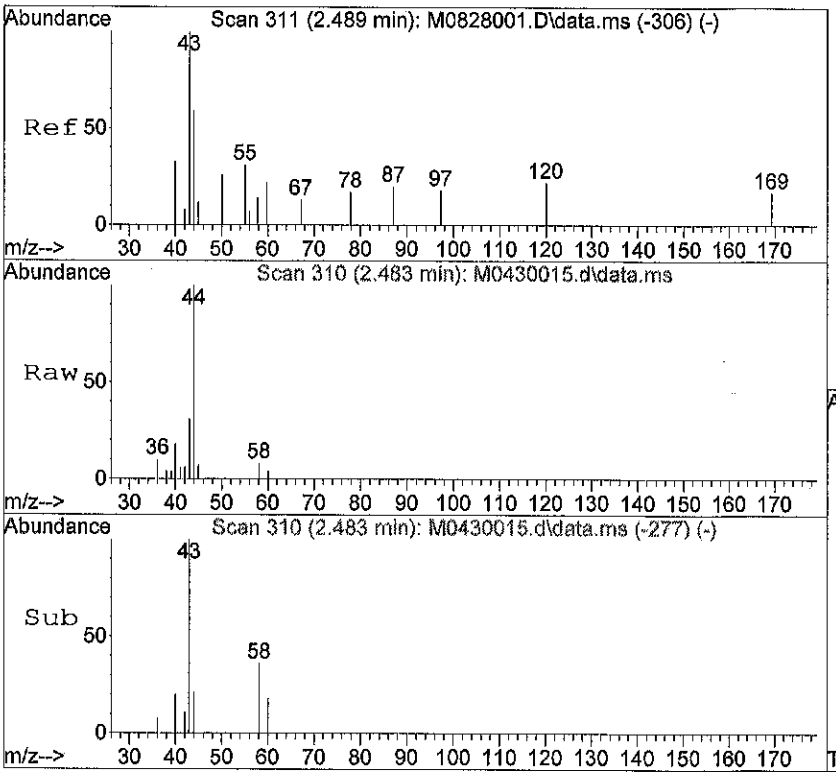
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430015.d
Acq On : 30 Apr 2014 1:32 pm
Operator :
Sample : 04-179-01b
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 30 14:05:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

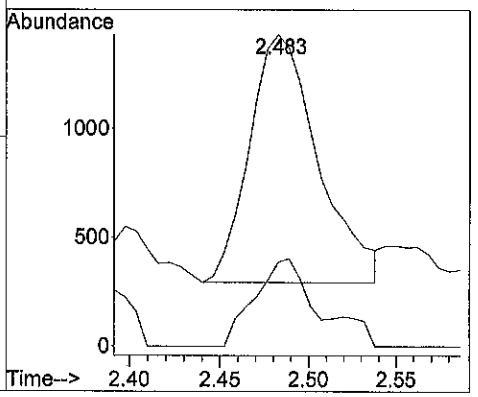


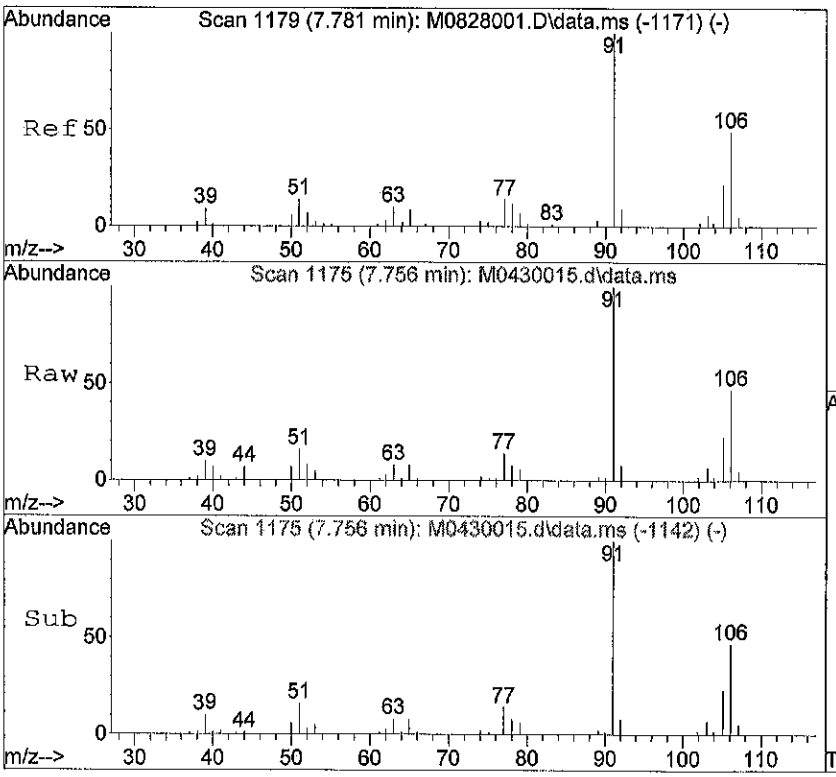


#9
Acetone
Concen: 0.90 ppb
RT: 2.483 min Scan# 310
Delta R.T. -0.000 min
Lab File: M0430015.d
Acq: 30 Apr 2014 1:32 pm

Tgt Ion: 43 Resp: 3071

Ion	Ratio	Lower	Upper
43	100		
58	28.3	28.6	43.0#

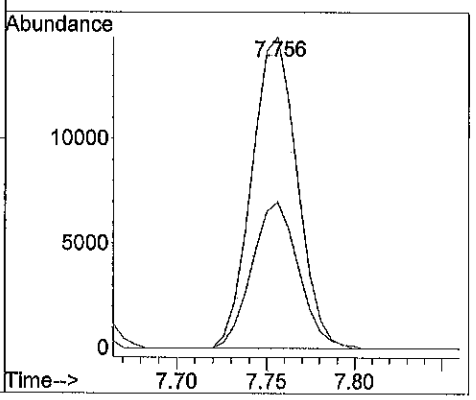


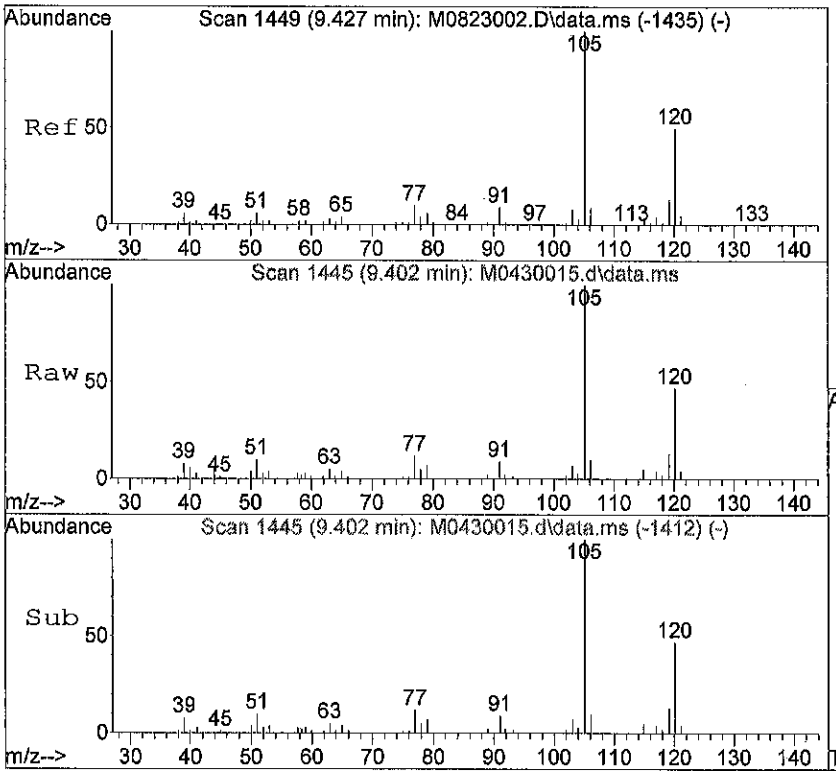


#49
m,p-Xylene
Concen: 0.28 ppb
RT: 7.756 min Scan# 1175
Delta R.T. 0.000 min
Lab File: M0430015.d
Acq: 30 Apr 2014 1:32 pm

Tgt Ion: 91 Resp: 26511

Ion	Ratio	Lower	Upper
91	100		
106	48.2	40.2	60.2

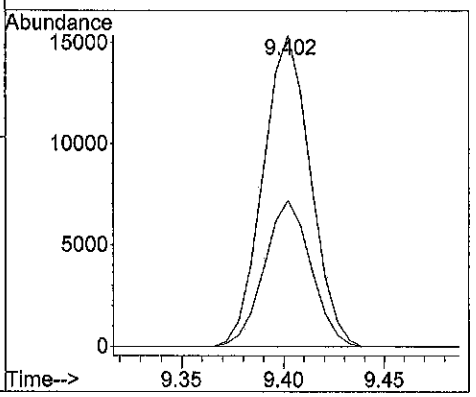


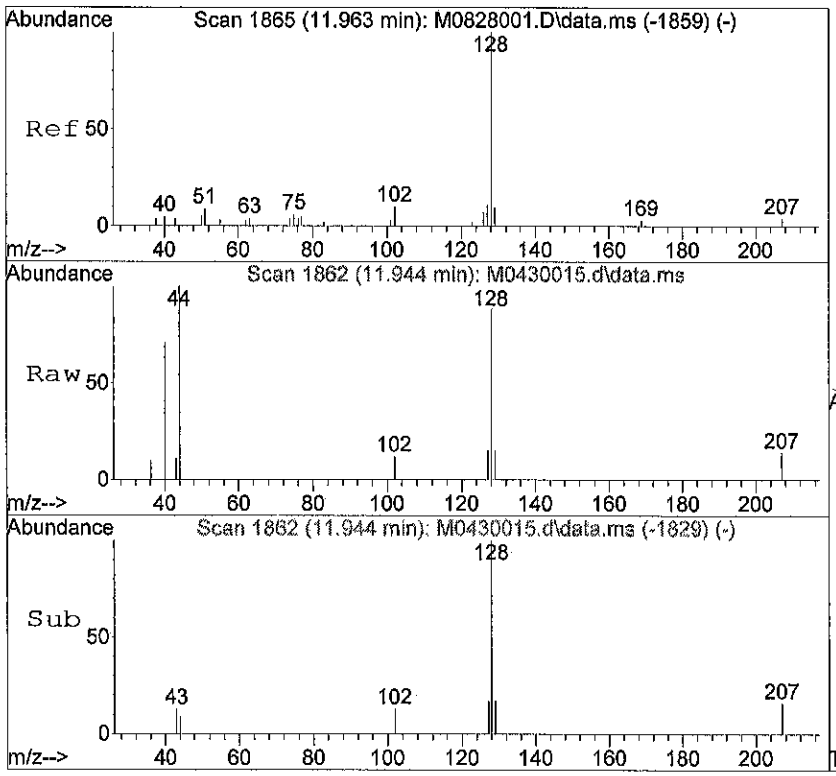


#64
1,2,4-Trimethylbenzene
Concen: 0.30 ppb
RT: 9.402 min Scan# 1445
Delta R.T. 0.000 min
Lab File: M0430015.d
Acq: 30 Apr 2014 1:32 pm

Tgt Ion:105 Resp: 24979

Ion	Ratio	Lower	Upper
105	100		
120	46.1	37.1	55.7

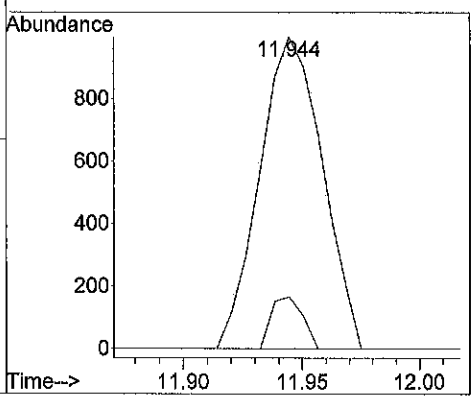




#74
Naphthalene
Concen: 0.83 ppb
RT: 11.944 min Scan# 1862
Delta R.T. 0.000 min
Lab File: M0430015.d
Acq: 30 Apr 2014 1:32 pm

Tgt Ion:128 Resp: 1842

Ion	Ratio	Lower	Upper
128	100		
129	0.0	9.3	13.9#



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430016.d
Acq On : 30 Apr 2014 1:58 pm
Operator :
Sample : 04-179-02b
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 30 14:43:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

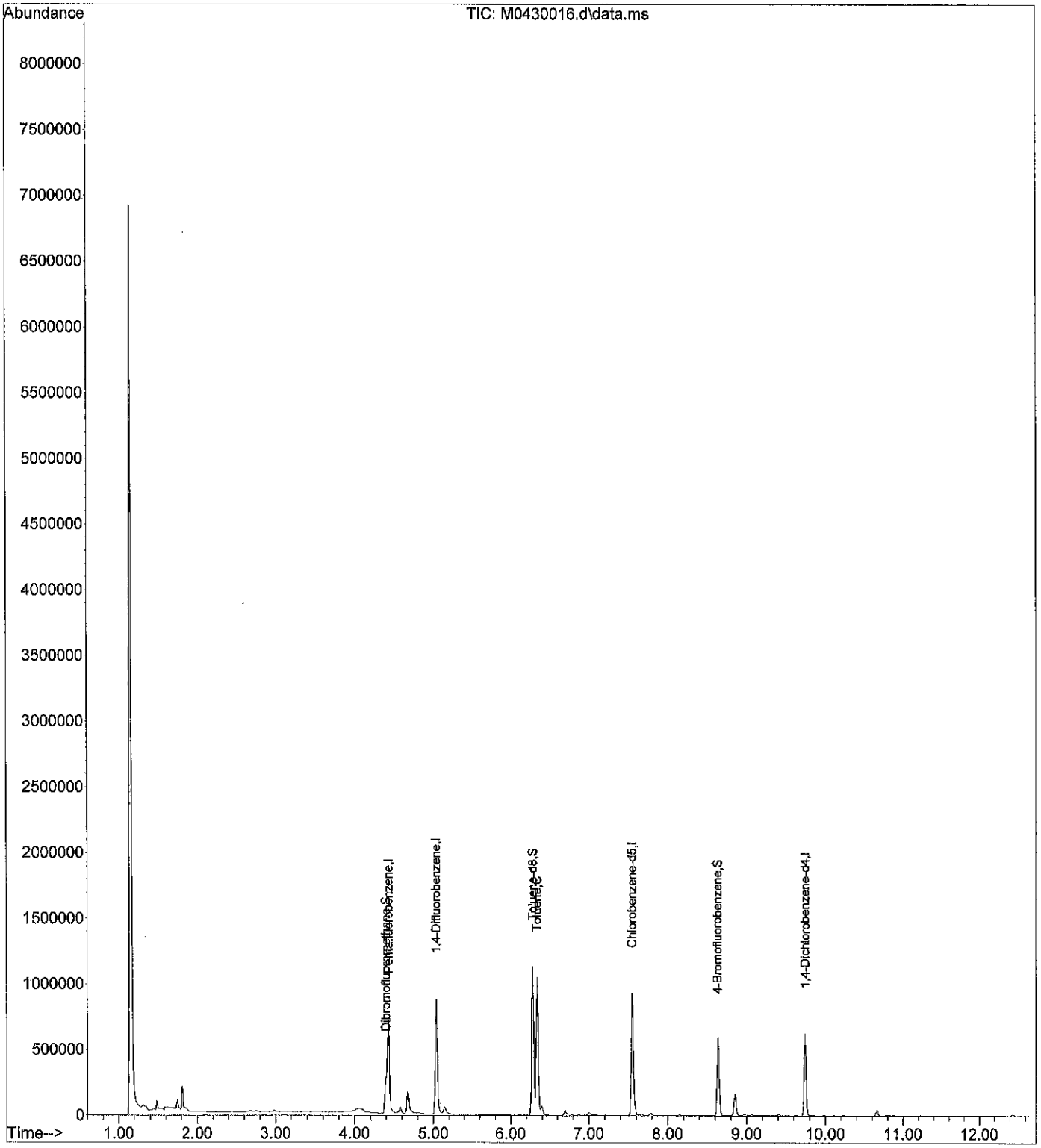
Compound		R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards							
1) Pentafluorobenzene		4.428	168	453762	10.00	ppb	0.09
28) 1,4-Difluorobenzene		5.037	114	656683	10.00	ppb	0.09
38) Chlorobenzene-d5		7.549	117	556273	10.00	ppb	0.03
55) 1,4-Dichlorobenzene-d4		9.744	152	186164	10.00	ppb	0.01
System Monitoring Compounds							
23) Dibromofluoromethane		4.397	111	171092	10.42	ppb	0.10
Spiked Amount	10.000	Range 62 - 122		Recovery =	104.20%		
36) Toluene-d8		6.281	98	774414m	10.78	ppb	0.06
Spiked Amount	10.000	Range 70 - 120		Recovery =	107.80%		
54) 4-Bromofluorobenzene		8.634	95	210643	8.81	ppb	0.02
Spiked Amount	10.000	Range 71 - 120		Recovery =	88.10%		
Target Compounds							Qvalue
37) Toluene		6.336	91	725576m	7.29	ppb	

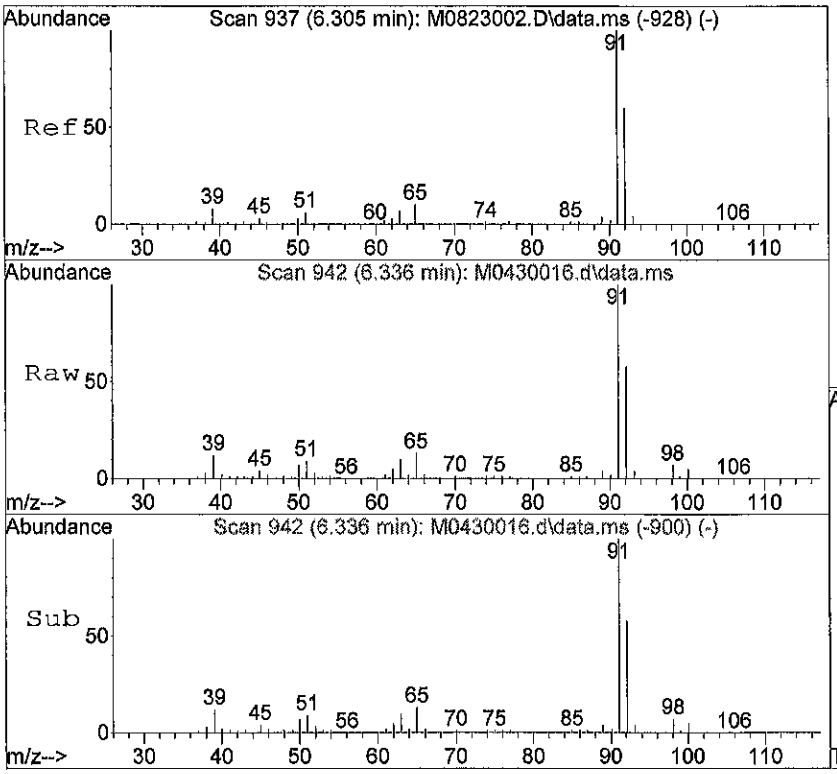
(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/1/14

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430016.d
Acq On : 30 Apr 2014 1:58 pm
Operator :
Sample : 04-179-02b
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 30 14:43:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

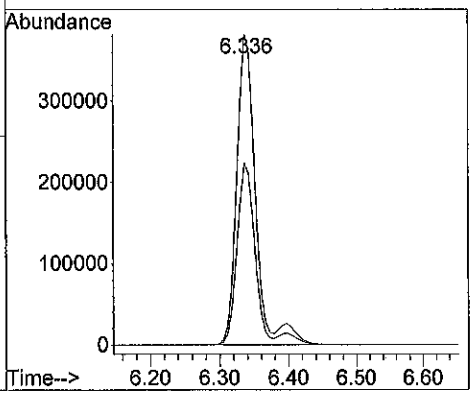




#37
Toluene
Concen: 7.29 ppb m
RT: 6.336 min Scan# 942
Delta R.T. 0.055 min
Lab File: M0430016.d
Acq: 30 Apr 2014 1:58 pm

Tgt Ion: 91 Resp: 725576

Ion	Ratio	Lower	Upper
91	100		
92	3.8	47.4	71.0#



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430017.d
Acq On : 30 Apr 2014 2:23 pm
Operator :
Sample : 04-179-03b
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 30 14:41:05 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

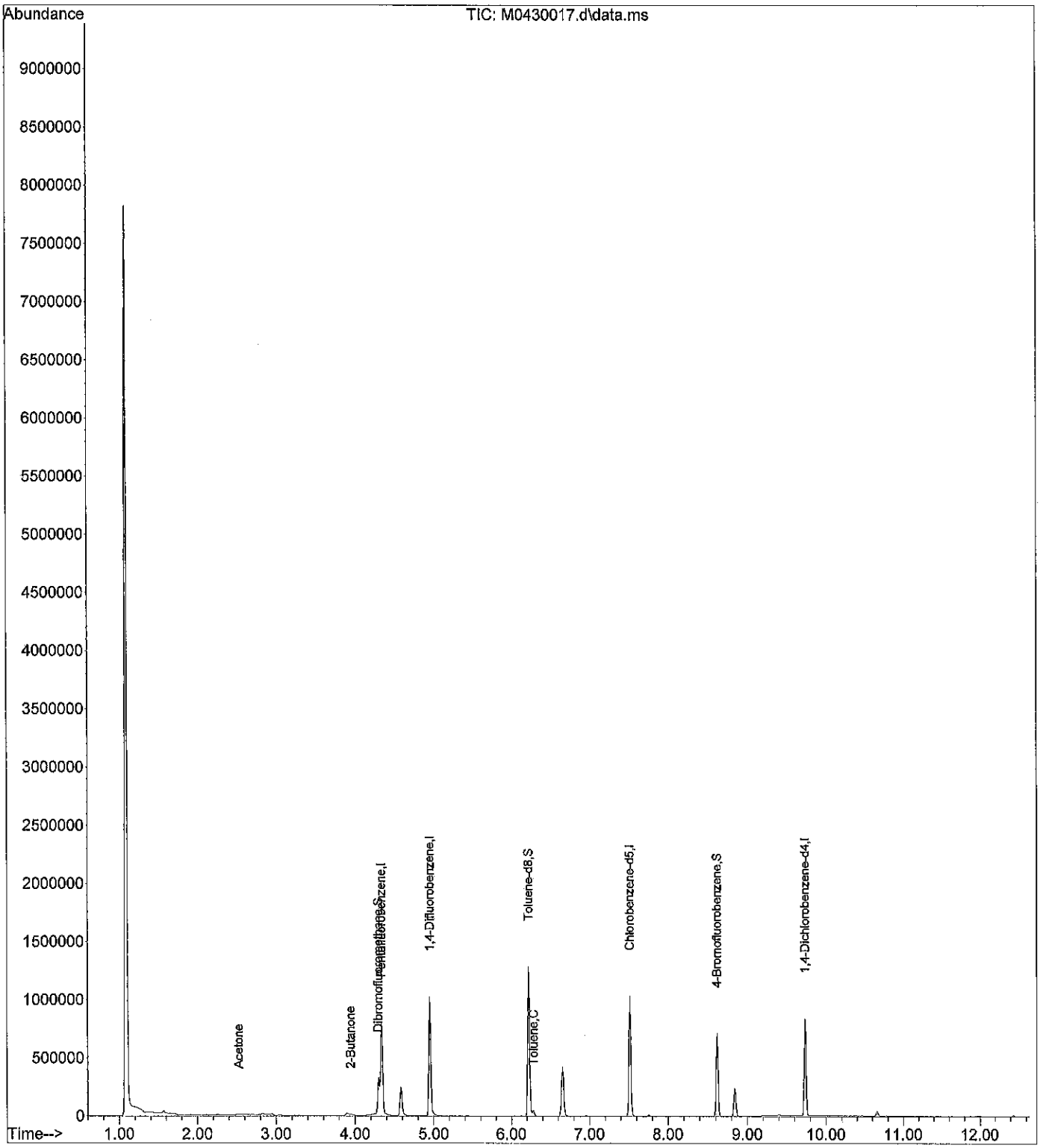
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	520731	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	748221	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	578986	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	230571	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	175584	9.32	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 93.20%			
36) Toluene-d8	6.220	98	802777	9.80	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 98.00%			
54) 4-Bromofluorobenzene	8.622	95	238241	9.58	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 95.80%			
Target Compounds						Qvalue
9) Acetone	2.525	43	15899	4.72	ppb	# 86
19) 2-Butanone	3.946	43	11241	2.06	ppb	# 81
37) Toluene	6.281	91	27831	0.25	ppb	100

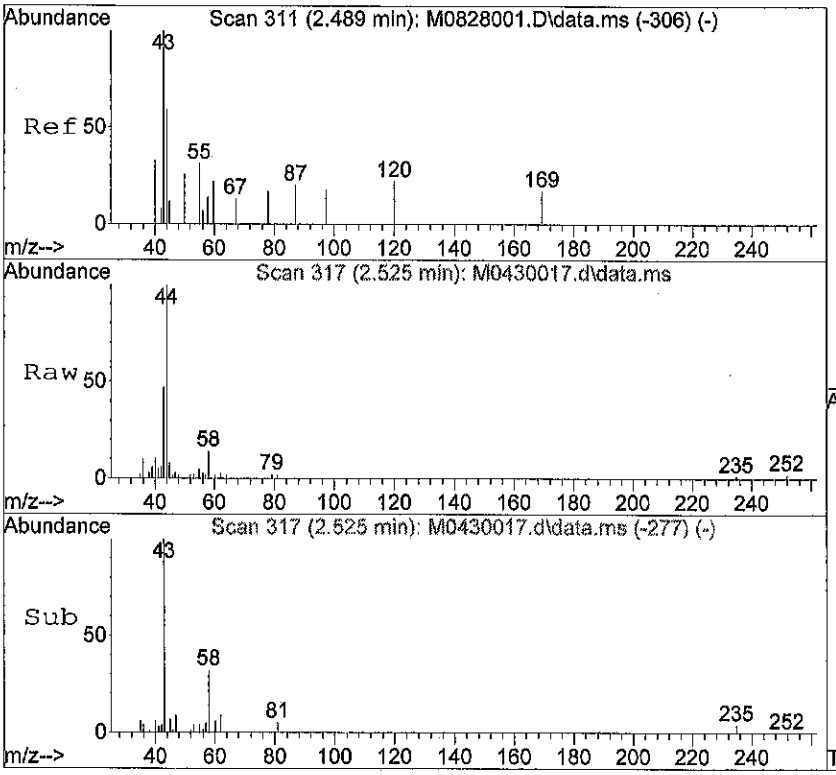
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430017.d
Acq On : 30 Apr 2014 2:23 pm
Operator :
Sample : 04-179-03b
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 30 14:41:05 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

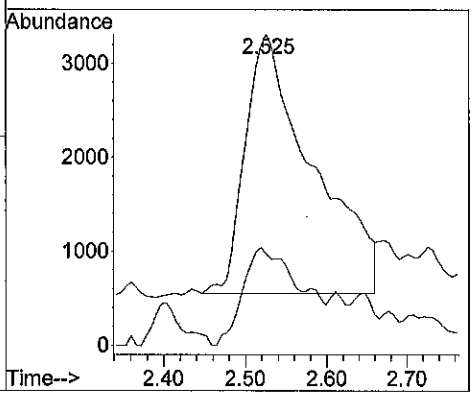


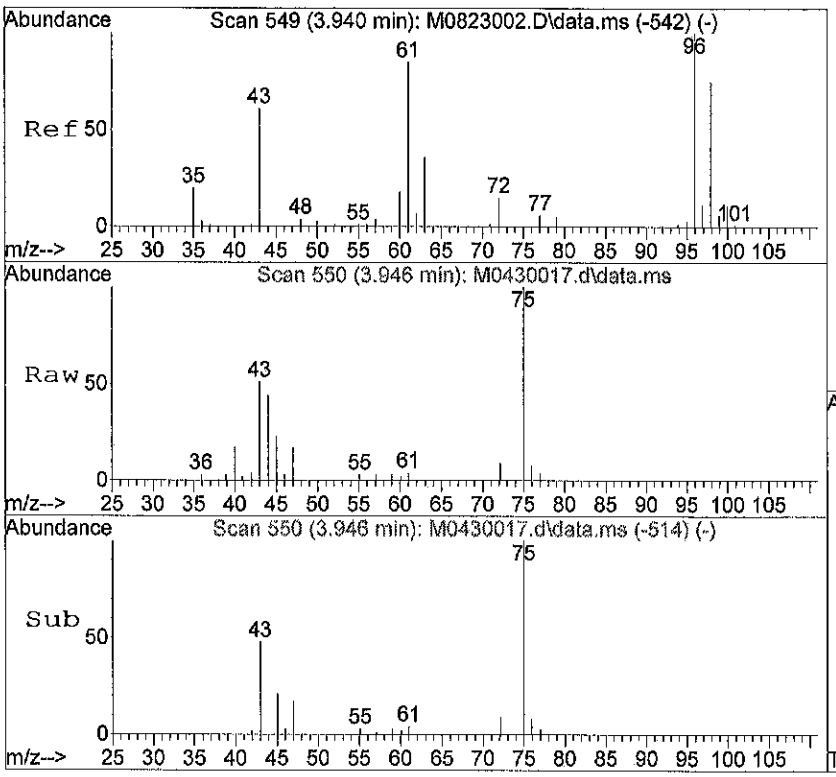


#9
Acetone
Concen: 4.72 ppb
RT: 2.525 min Scan# 317
Delta R.T. 0.042 min
Lab File: M0430017.d
Acq: 30 Apr 2014 2:23 pm

Tgt Ion: 43 Resp: 15899

Ion	Ratio	Lower	Upper
43	100		
58	27.7	28.6	43.0#

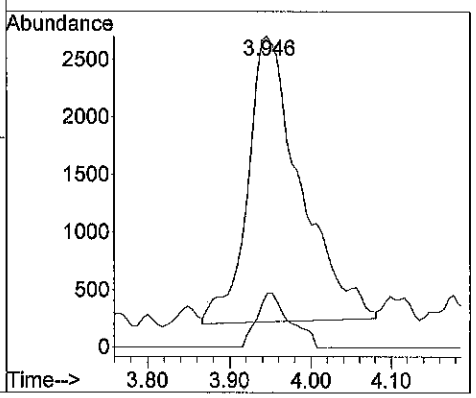


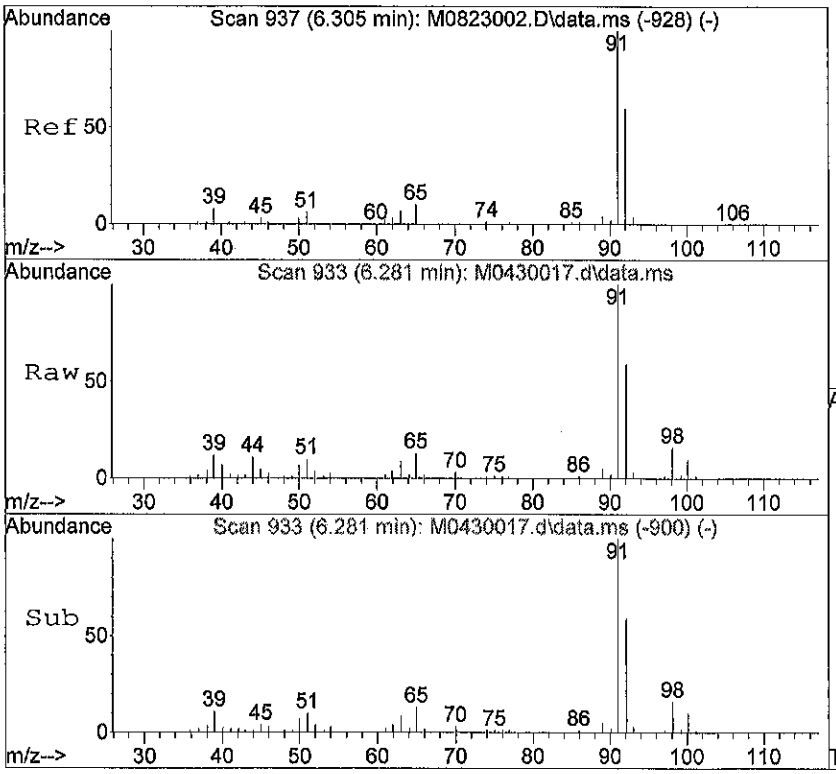


#19
2-Butanone
Concen: 2.06 ppb
RT: 3.946 min Scan# 550
Delta R.T. 0.018 min
Lab File: M0430017.d
Acq: 30 Apr 2014 2:23 pm

Tgt Ion: 43 Resp: 11241

Ion	Ratio	Lower	Upper
43	100		
72	11.9	16.6	24.8#

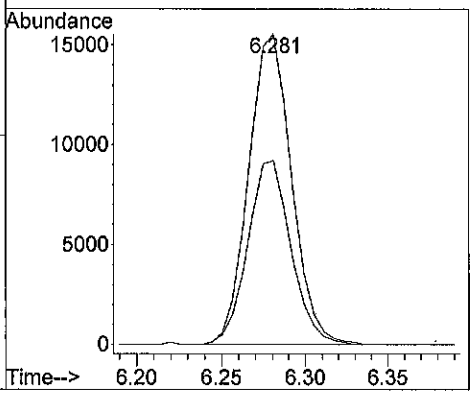




#37
Toluene
Concen: 0.25 ppb
RT: 6.281 min Scan# 933
Delta R.T. -0.000 min
Lab File: M0430017.d
Acq: 30 Apr 2014 2:23 pm

Tgt Ion: 91 Resp: 27831

Ion	Ratio	Lower	Upper
91	100		
92	59.5	47.4	71.0



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430018.d
Acq On : 30 Apr 2014 2:47 pm
Operator :
Sample : 04-179-04b
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 01 07:10:50 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

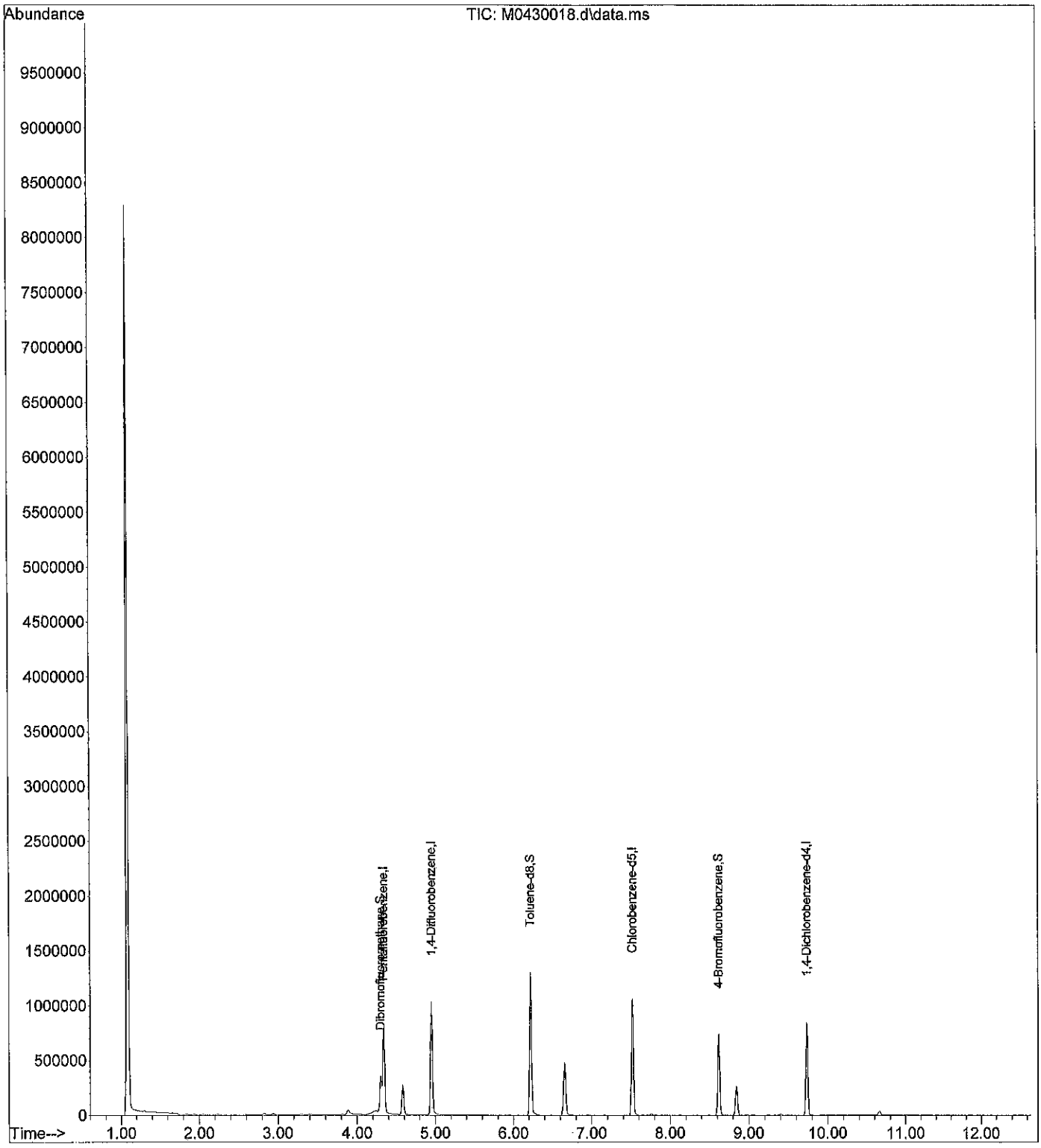
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	518529	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	749639	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	585398	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	238939	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	185084	9.86	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 98.60%			
36) Toluene-d8	6.220	98	800444	9.76	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 97.60%			
54) 4-Bromofluorobenzene	8.622	95	245125	9.75	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.50%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430018.d
Acq On : 30 Apr 2014 2:47 pm
Operator :
Sample : 04-179-04b
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 01 07:10:50 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430019.d
Acq On : 30 Apr 2014 3:10 pm
Operator :
Sample : 04-179-05b
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 01 07:11:38 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

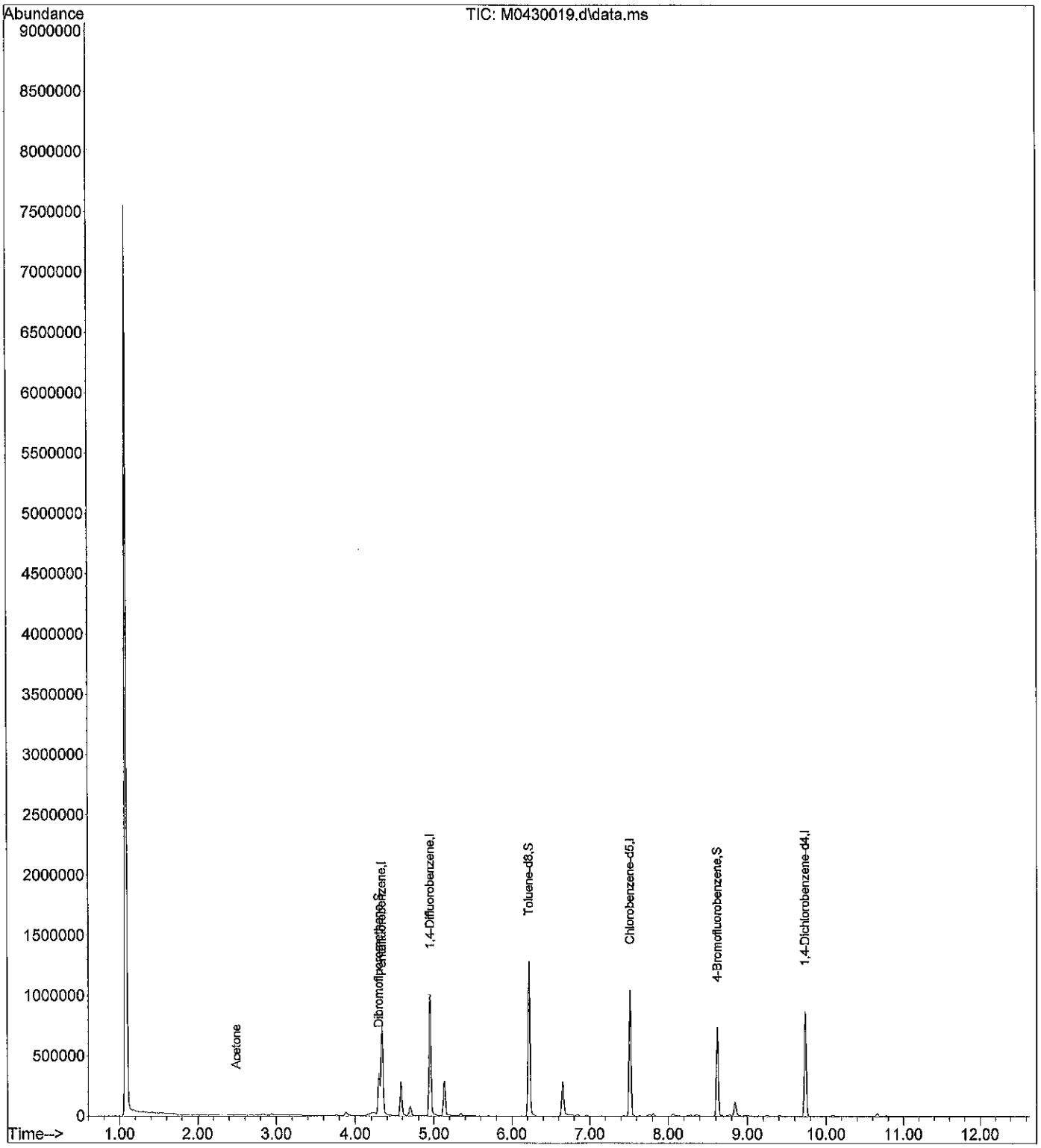
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	511527	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	731671	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	584818	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246926	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	184219	9.95	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery =	99.50%		
36) Toluene-d8	6.220	98	796843	9.95	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery =	99.50%		
54) 4-Bromofluorobenzene	8.622	95	249682	9.94	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery =	99.40%		
Target Compounds						Qvalue
9) Acetone	2.495	43	14624	4.42	ppb	# 87

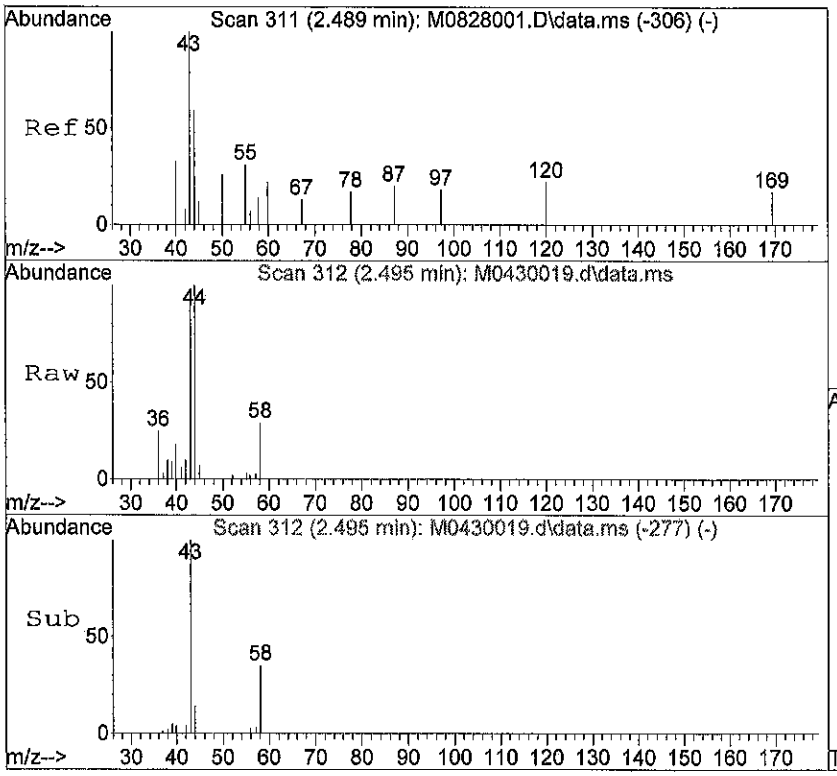
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430019.d
Acq On : 30 Apr 2014 3:10 pm
Operator :
Sample : 04-179-05b
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 01 07:11:38 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

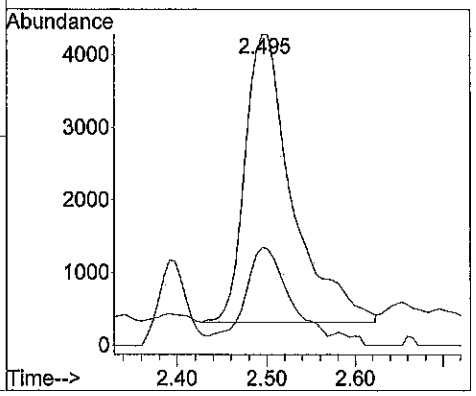




#9
Acetone
Concen: 4.42 ppb
RT: 2.495 min Scan# 312
Delta R.T. 0.012 min
Lab File: M0430019.d
Acq: 30 Apr 2014 3:10 pm

Tgt Ion: 43 Resp: 14624

Ion	Ratio	Lower	Upper
43	100		
58	28.2	28.6	43.0#



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430020.d
Acq On : 30 Apr 2014 3:34 pm
Operator :
Sample : 04-179-06b
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 01 07:12:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

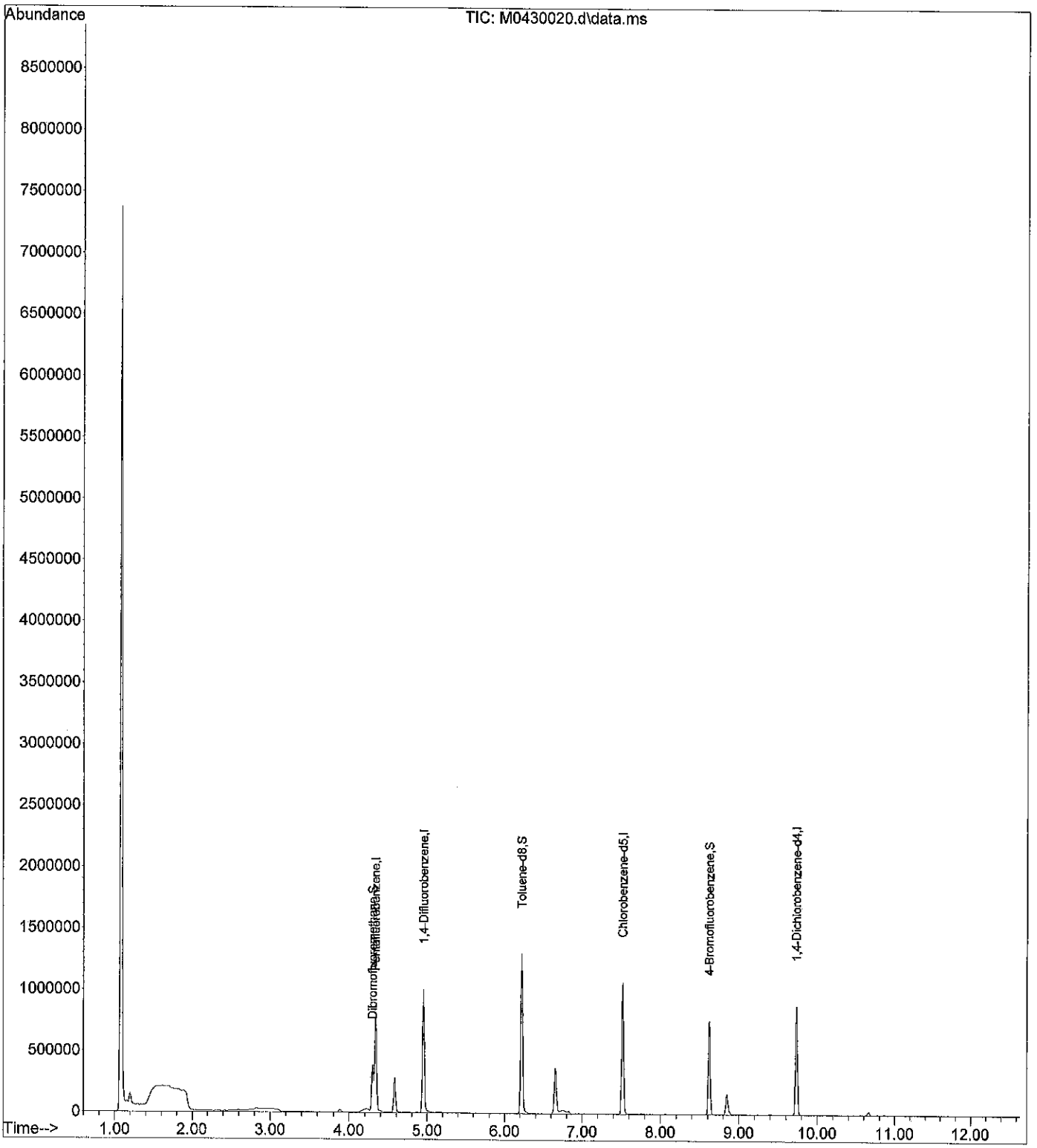
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	511679	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	739714	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	594586	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	247650	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	205958	11.12	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 111.20%			
36) Toluene-d8	6.220	98	806650	9.96	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.60%			
54) 4-Bromofluorobenzene	8.622	95	253090	9.91	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.10%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430020.d
Acq On : 30 Apr 2014 3:34 pm
Operator :
Sample : 04-179-06b
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 01 07:12:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430021.d
Acq On : 30 Apr 2014 3:57 pm
Operator :
Sample : 04-179-07b
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 01 07:12:52 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

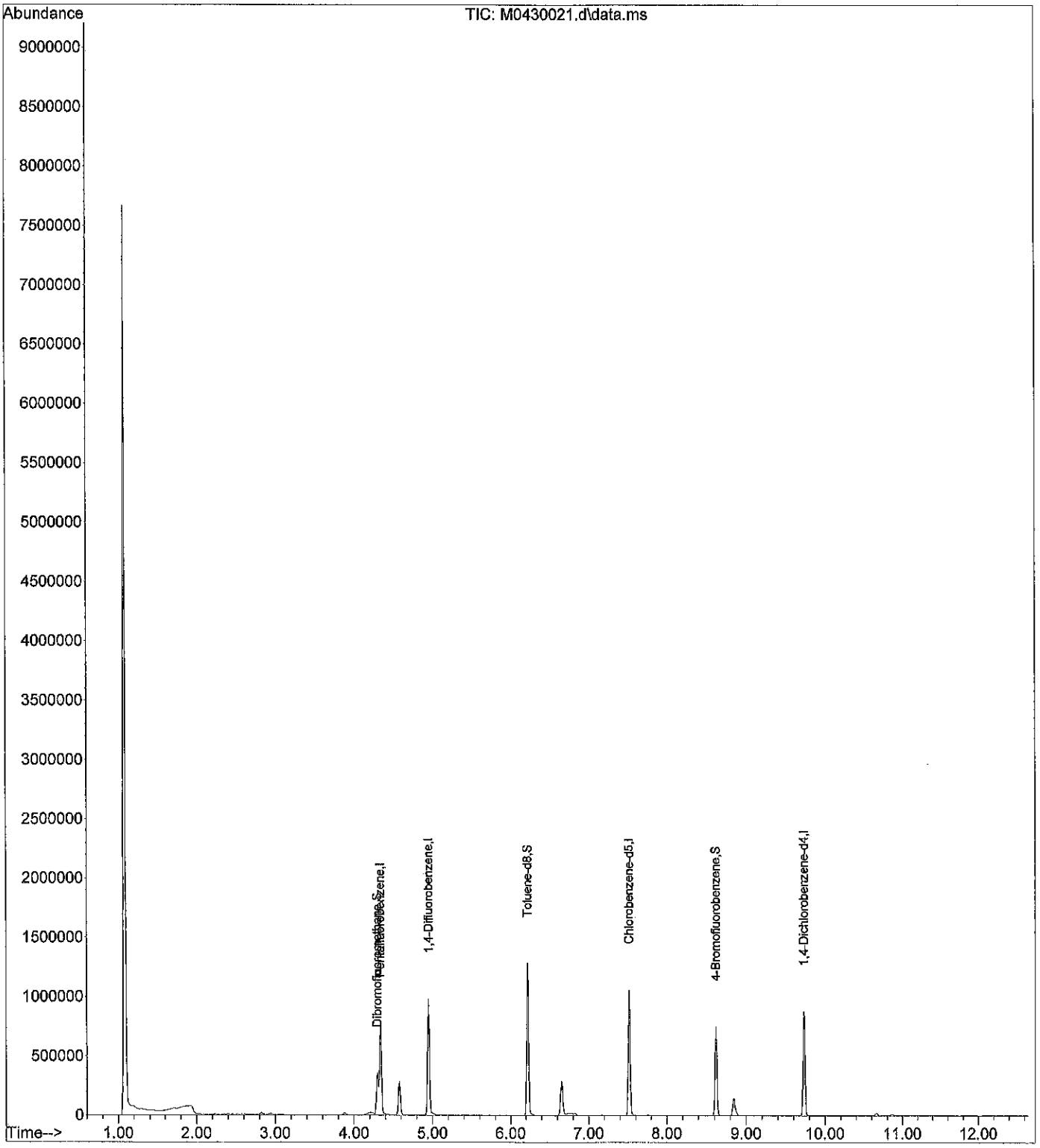
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	499946	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	722508	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	585325	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	243856	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	189277	10.46	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 104.60%			
36) Toluene-d8	6.220	98	793896	10.04	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.40%			
54) 4-Bromofluorobenzene	8.622	95	247085	9.83	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.30%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430021.d
Acq On : 30 Apr 2014 3:57 pm
Operator :
Sample : 04-179-07b
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 01 07:12:52 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430022.d
Acq On : 30 Apr 2014 4:21 pm
Operator :
Sample : 04-179-08b
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: May 01 07:13:29 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

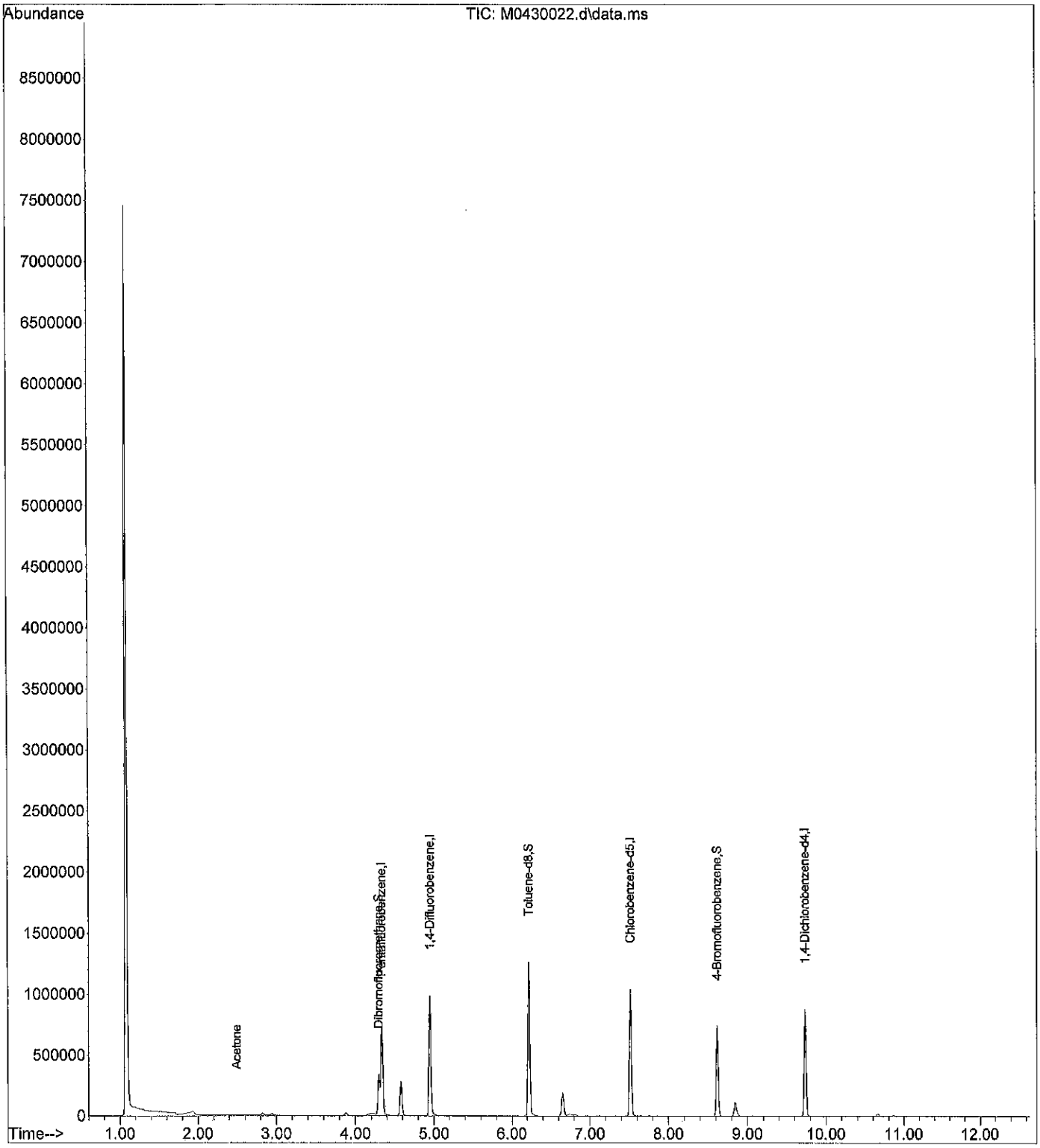
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	500205	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	720938	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	590843	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	247291	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	184198	10.18	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 101.80%			
36) Toluene-d8	6.220	98	789239	10.00	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.00%			
54) 4-Bromofluorobenzene	8.622	95	247562	9.75	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.50%			
Target Compounds						Qvalue
9) Acetone	2.495	43	2778	0.86	ppb	94

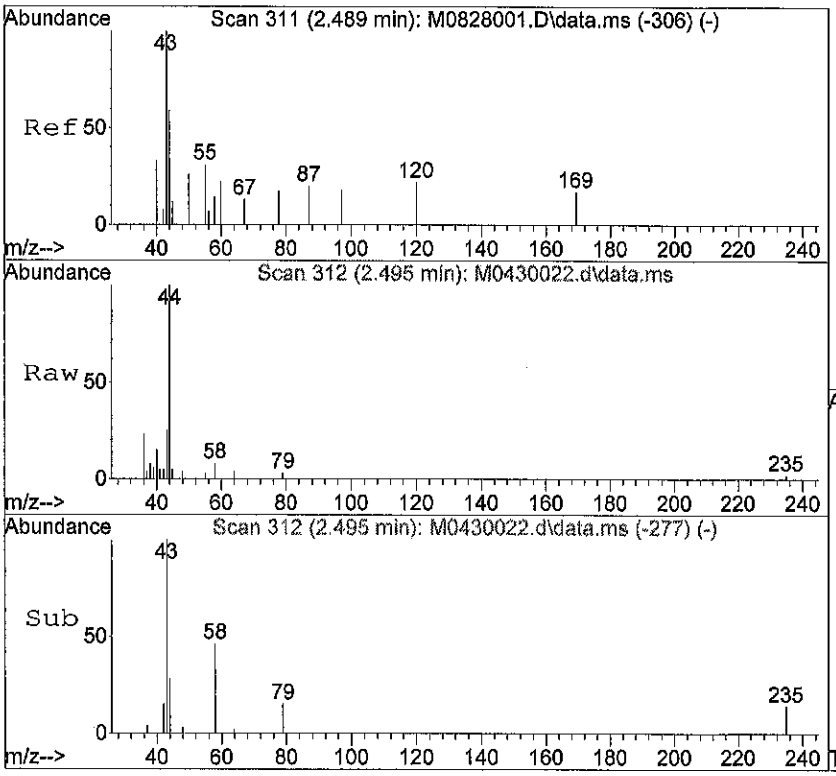
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430022.d
Acq On : 30 Apr 2014 4:21 pm
Operator :
Sample : 04-179-08b
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: May 01 07:13:29 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

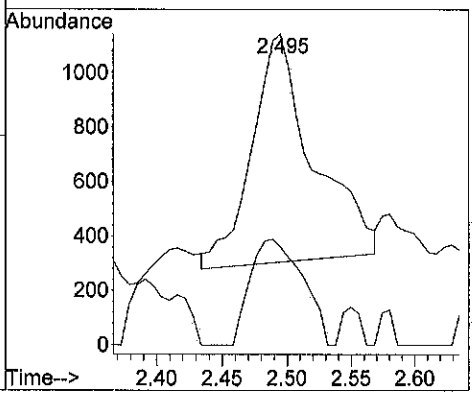




#9
Acetone
Concen: 0.86 ppb
RT: 2.495 min Scan# 312
Delta R.T. 0.012 min
Lab File: M0430022.d
Acq: 30 Apr 2014 4:21 pm

Tgt Ion: 43 Resp: 2778

Ion	Ratio	Lower	Upper
43	100		
58	39.5	28.6	43.0



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430023.d
Acq On : 30 Apr 2014 4:44 pm
Operator :
Sample : 04-179-09b
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: May 01 07:15:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

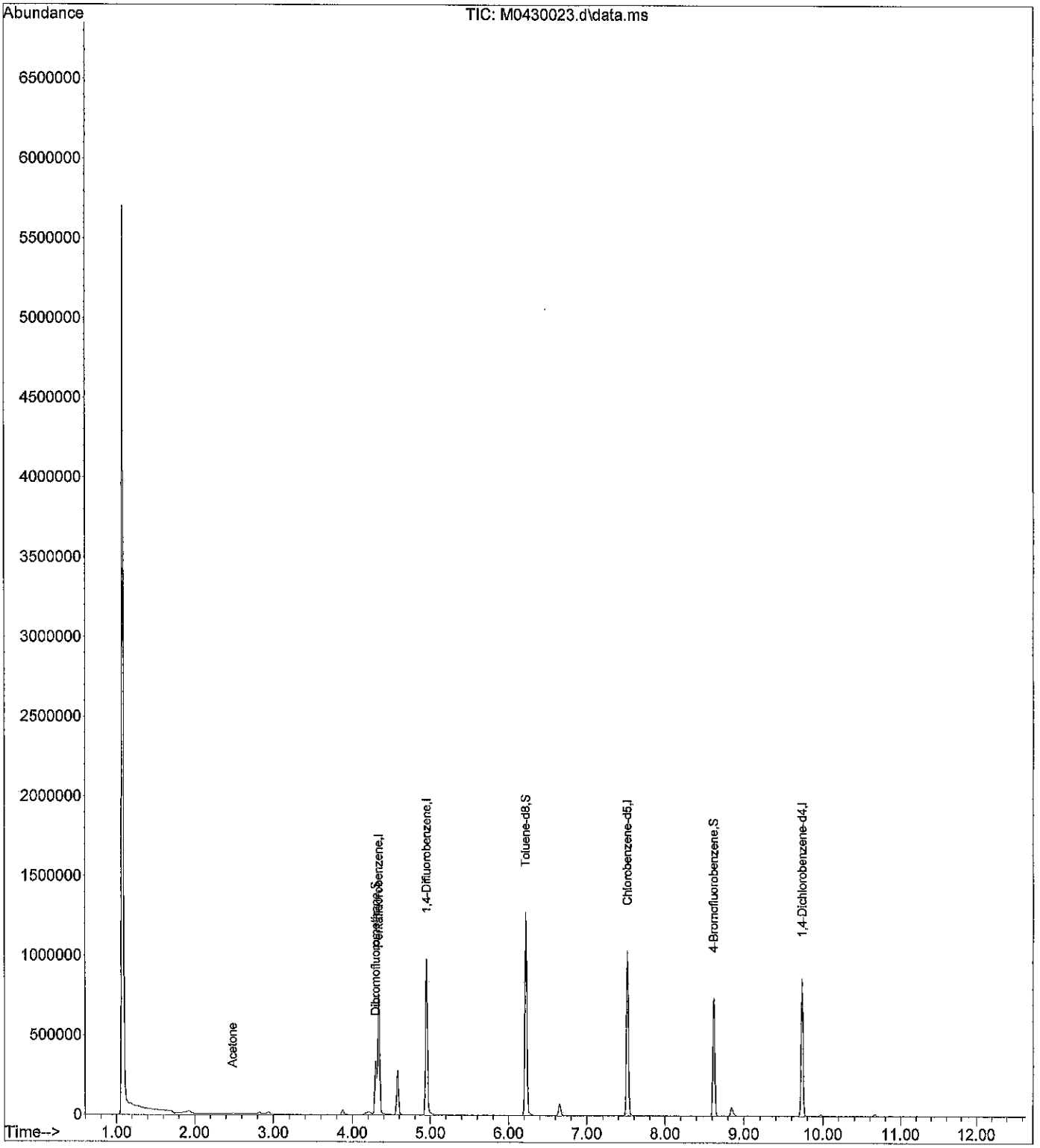
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	498642	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	712696	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	579599	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.737	152	247600	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	182158	10.10	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 101.00%			
36) Toluene-d8	6.220	98	792212	10.16	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 101.60%			
54) 4-Bromofluorobenzene	8.622	95	246948	9.92	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.20%			
Target Compounds						Qvalue
9) Acetone	2.483	43	3787	1.17	ppb	100

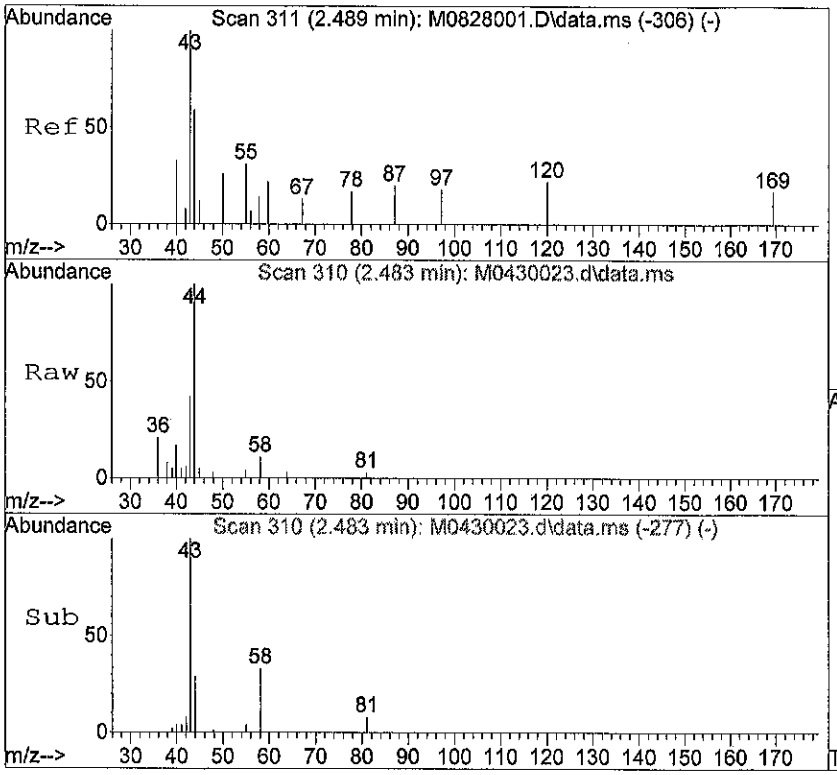
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430023.d
Acq On : 30 Apr 2014 4:44 pm
Operator :
Sample : 04-179-09b
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: May 01 07:15:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

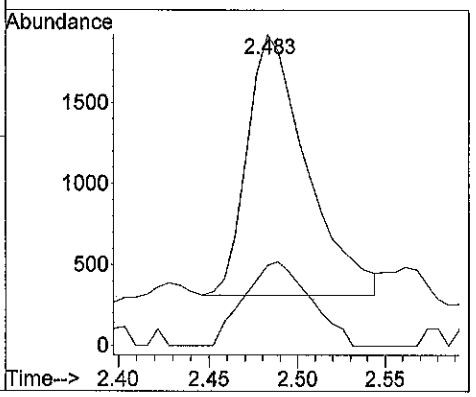




#9
Acetone
Concen: 1.17 ppb
RT: 2.483 min Scan# 310
Delta R.T. -0.000 min
Lab File: M0430023.d
Acq: 30 Apr 2014 4:44 pm

Tgt Ion: 43 Resp: 3787

Ion	Ratio	Lower	Upper
43	100		
58	35.7	28.6	43.0



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430006.d
Acq On : 30 Apr 2014 9:17 am
Operator :
Sample : MB0430W1
Misc :
ALS Vial : 6 Sample Multiplier: 1

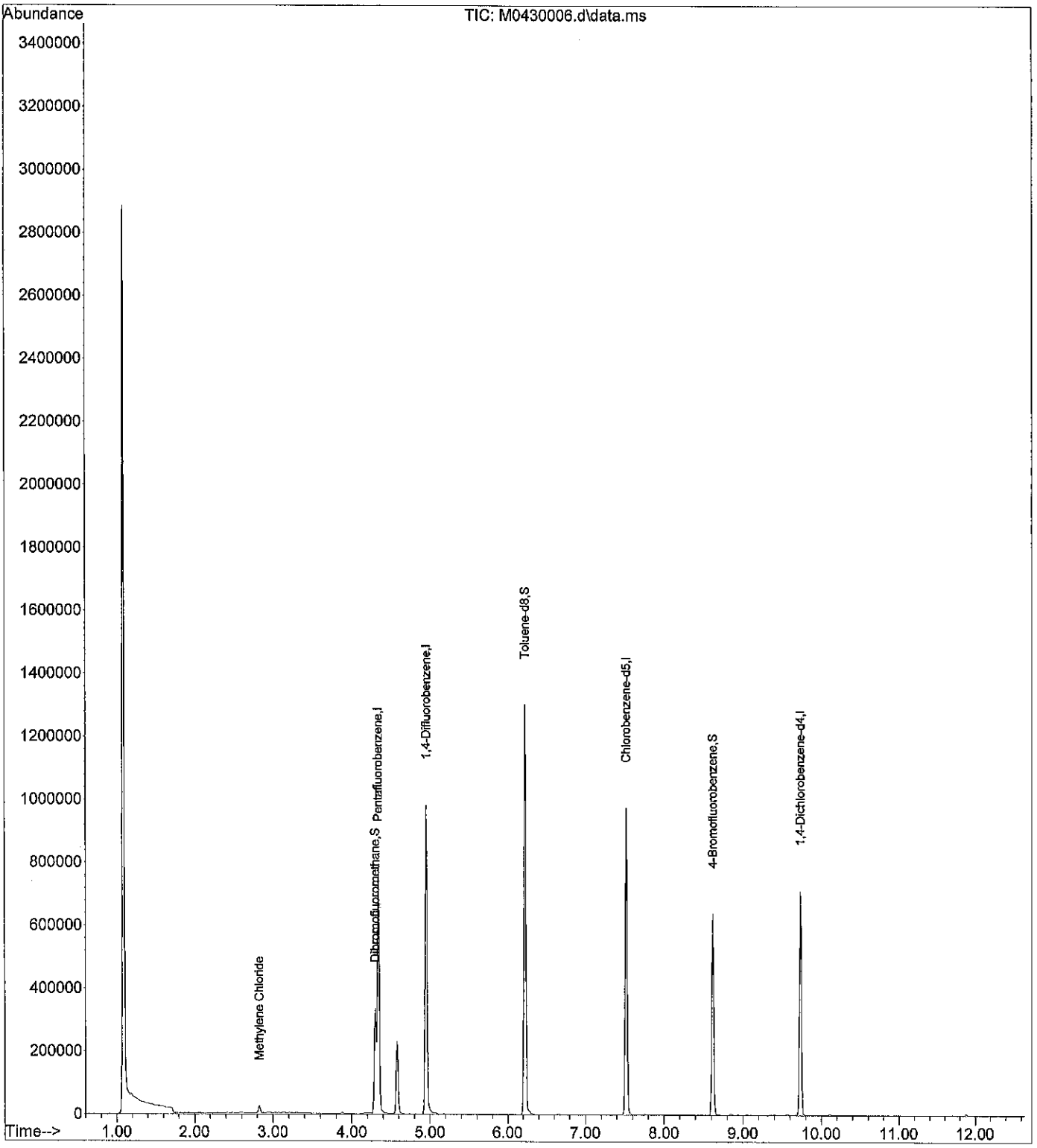
Quant Time: Apr 30 10:08:40 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

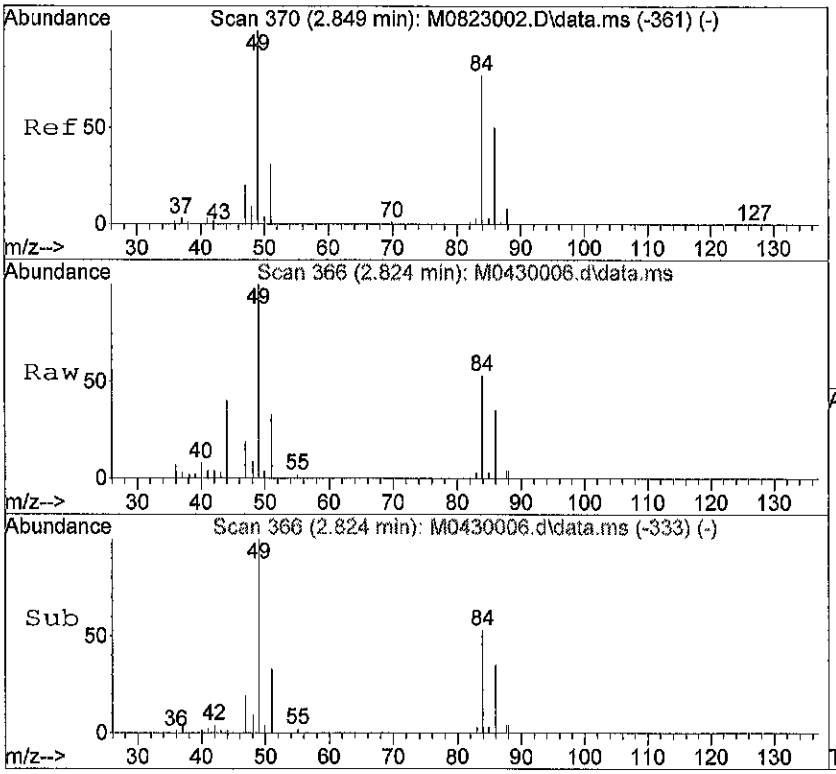
Compound		R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards							
1) Pentafluorobenzene		4.336	168	513198	10.00	ppb	0.00
28) 1,4-Difluorobenzene		4.952	114	733641	10.00	ppb	0.00
38) Chlorobenzene-d5		7.519	117	542412	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4		9.732	152	205134	10.00	ppb	0.00
System Monitoring Compounds							
23) Dibromofluoromethane		4.300	111	186821	10.06	ppb	0.00
Spiked Amount	10.000	Range 62 - 122		Recovery =	100.60%		
36) Toluene-d8		6.220	98	797865	9.94	ppb	0.00
Spiked Amount	10.000	Range 70 - 120		Recovery =	99.40%		
54) 4-Bromofluorobenzene		8.622	95	218544	9.38	ppb	0.00
Spiked Amount	10.000	Range 71 - 120		Recovery =	93.80%		
Target Compounds							Qvalue
12) Methylene Chloride		2.824	49	12824	0.29	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430006.d
Acq On : 30 Apr 2014 9:17 am
Operator :
Sample : MB0430W1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 30 10:08:40 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

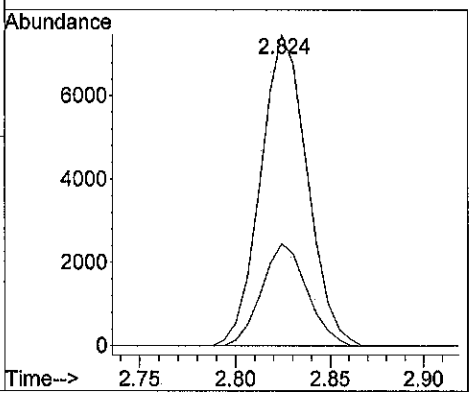




#12
Methylene Chloride
Concen: 0.29 ppb
RT: 2.824 min Scan# 366
Delta R.T. 0.000 min
Lab File: M0430006.d
Acq: 30 Apr 2014 9:17 am

Tgt Ion: 49 Resp: 12824

Ion	Ratio	Lower	Upper
49	100		
51	31.9	24.8	37.2



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430004.d
Acq On : 30 Apr 2014 8:31 am
Operator :
Sample : SB0430W1/T1
Misc : V3-125-17
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 30 09:10:29 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

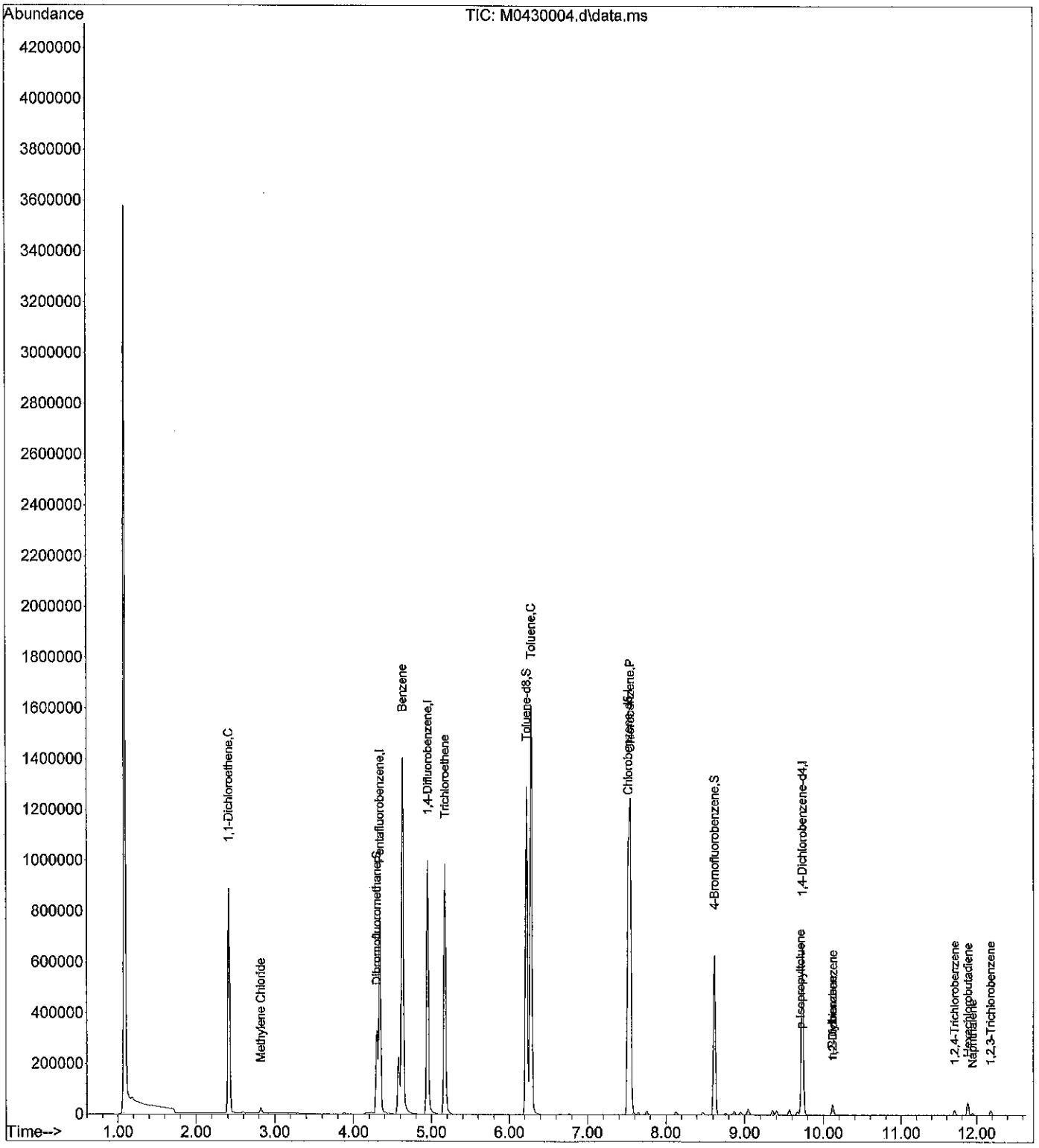
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	529942	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	752827	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	531963	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	195935	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	180357	9.41	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 94.10%				
36) Toluene-d8	6.220	98	803432	9.75	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 97.50%				
54) 4-Bromofluorobenzene	8.622	95	217469	9.52	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 95.20%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	574038	10.94	ppb		99
12) Methylene Chloride	2.824	49	13408	0.29	ppb		96
26) Benzene	4.629	78	1040153	9.89	ppb		99
29) Trichloroethene	5.171	130	319527	9.60	ppb		99
37) Toluene	6.275	91	1127598	9.88	ppb		99
46) Chlorobenzene	7.543	112	633332	10.70	ppb		99
67) p-Isopropyltoluene	9.713	119	14862	0.22	ppb		99
69) 1,2-Dichlorobenzene	10.121	146	5372	0.23	ppb		98
70) n-Butylbenzene	10.115	91	17655	0.30	ppb		100
72) 1,2,4-Trichlorobenzene	11.707	180	7444	0.93	ppb		99
73) Hexachlorobutadiene	11.883	225	12226	1.62	ppb		94
74) Naphthalene	11.944	128	6577	1.27	ppb	#	90
75) 1,2,3-Trichlorobenzene	12.182	180	7128	1.41	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430004.d
Acq On : 30 Apr 2014 8:31 am
Operator :
Sample : SB0430W1/T1
Misc : V3-125-17
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 30 09:10:29 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430005.d
Acq On : 30 Apr 2014 8:54 am
Operator :
Sample : SBD0430W1/T1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 30 09:11:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

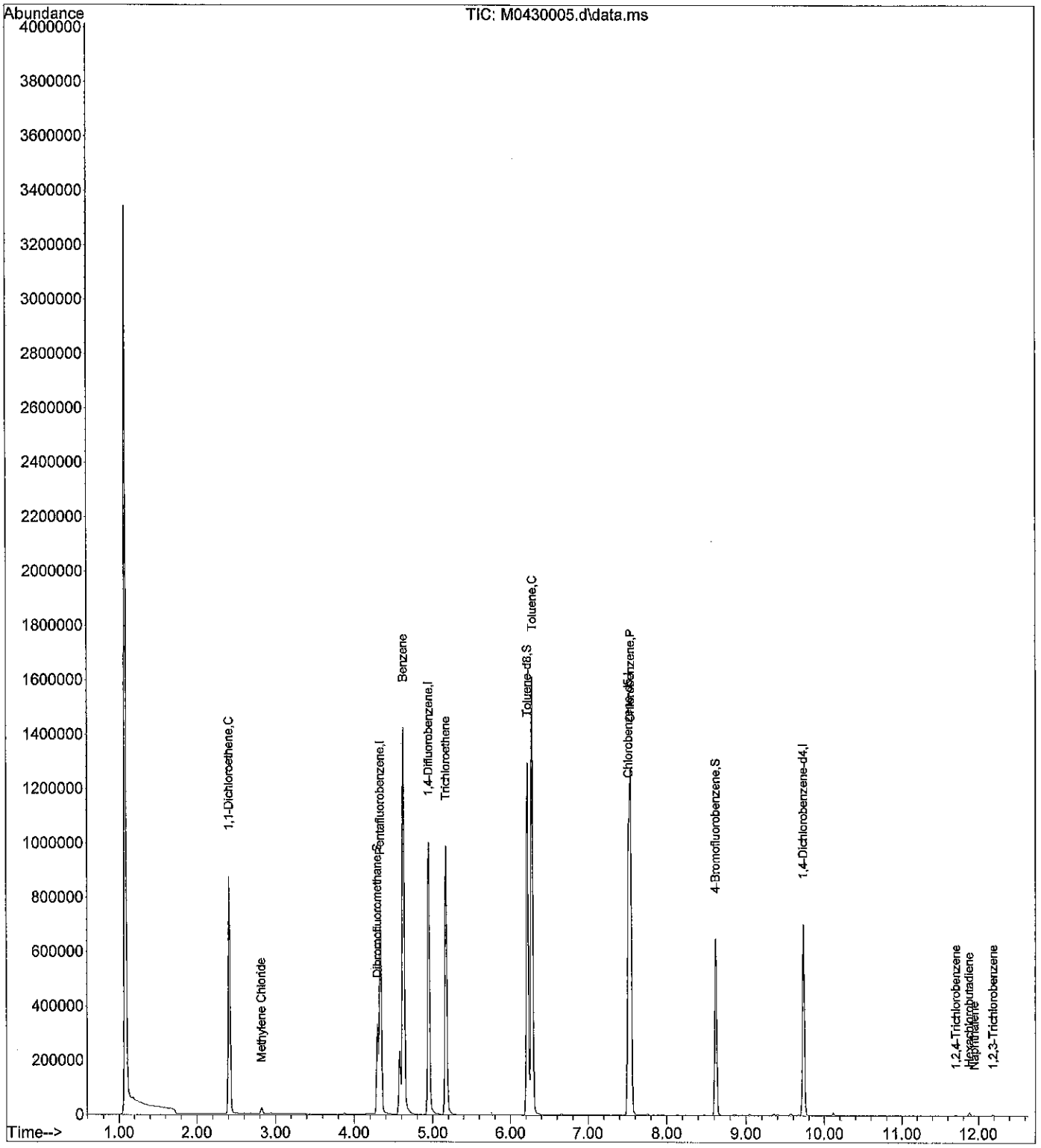
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	514950	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	736630	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	536298	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	199743	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	181744	9.75	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 97.50%				
36) Toluene-d8	6.220	98	811286	10.06	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.60%				
54) 4-Bromofluorobenzene	8.622	95	218389	9.48	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.80%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	559686	10.98	ppb		99
12) Methylene Chloride	2.824	49	13937	0.31	ppb		99
26) Benzene	4.629	78	1051009	10.28	ppb		99
29) Trichloroethene	5.171	130	314804	9.67	ppb		99
37) Toluene	6.281	91	1124362	10.07	ppb		100
46) Chlorobenzene	7.543	112	645154	10.81	ppb		99
72) 1,2,4-Trichlorobenzene	11.707	180	1359	0.29	ppb		95
73) Hexachlorobutadiene	11.877	225	2761	0.36	ppb		95
74) Naphthalene	11.944	128	1026	0.79	ppb	#	70
75) 1,2,3-Trichlorobenzene	12.188	180	1107	0.37	ppb	#	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430005.d
Acq On : 30 Apr 2014 8:54 am
Operator :
Sample : SBD0430W1/T1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 30 09:11:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Compound List Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140429W.M
Title :
Last Update : Tue Apr 29 13:05:18 2014
Response Via : Initial Calibration

Total Cpnds : 75

PK#	Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1 I	Pentafluorobenzene	168	4.336	1.000	A	0	A	B
2	Dichlorodifluoromethane	85	1.209	0.279	L	1	A	B
3 P	Chloromethane	50	1.343	0.310	A	1	A	B
4 C	Vinyl Chloride	62	1.428	0.329	A	1	A	B
5	Bromomethane	96	1.690	0.390	A	1	A	B
6	Chloroethane	64	1.769	0.408	A	1	A	B
7	Trichlorofluoromethane	101	1.977	0.456	A	1	A	B
8 C	1,1-Dichloroethene	61	2.416	0.557	A	1	A	B
9	Acetone	43	2.483	0.573	A	1	A	B
10	Iodomethane	142	2.538	0.585	L	1	A	B
11	Carbon Disulfide	76	2.592	0.598	A	1	A	B
12	Methylene Chloride	49	2.824	0.651	A	1	A	B
13	(trans) 1,2-Dichloroethene	61	3.056	0.705	A	1	A	B
14	Methyl t-Butyl Ether	73	3.068	0.708	A	3	A	B
15 P	1,1-Dichloroethane	63	3.409	0.786	A	1	A	B
16	Vinyl Acetate	43	3.464	0.799	L	1	A	B
17	2,2-Dichloropropane	77	3.897	0.899	A	1	A	B
18	(cis) 1,2-Dichloroethene	61	3.897	0.899	A	1	A	B
19	2-Butanone	43	3.928	0.906	A	1	A	B
20	Bromochloromethane	130	4.098	0.945	A	3	A	B
21 C	Chloroform	83	4.165	0.961	A	1	A	B
22	1,1,1-Trichloroethane	97	4.318	0.996	A	1	A	B
23 S	Dibromofluoromethane	111	4.299	0.991	A	1	A	B
24	Carbon Tetrachloride	117	4.458	1.028	A	1	A	B
25	1,1-Dichloropropene	75	4.452	1.027	A	1	A	B
26	Benzene	78	4.629	1.068	A	1	A	B
27	1,2-Dichloroethane	62	4.641	1.070	A	1	A	B
28 I	1,4-Difluorobenzene	114	4.952	1.000	A	0	A	B
29	Trichloroethene	130	5.171	1.044	A	1	A	B
30 C	1,2-Dichloropropane	63	5.360	1.082	A	1	A	B
31	Dibromomethane	174	5.464	1.103	A	2	A	B
32	Bromodichloromethane	83	5.598	1.130	A	1	A	B
33	2-Chloroethyl Vinyl Ether	63	5.860	1.183	L	1	A	B
34	(cis) 1,3-Dichloropropene	75	5.982	1.208	A	1	A	B
35	Methyl Isobutyl Ketone	43	6.122	1.236	A	3	A	B
36 S	Toluene-d8	98	6.220	1.256	A	1	A	B
37 C	Toluene	91	6.281	1.268	A	1	A	B
38 I	Chlorobenzene-d5	117	7.518	1.000	A	1	A	B
39	(trans) 1,3-Dichloropropene	75	6.470	0.861	A	1	A	B
40	1,1,2-Trichloroethane	97	6.634	0.882	A	1	A	B
41	Tetrachloroethene	166	6.769	0.900	A	2	A	B
42	1,3-Dichloropropane	76	6.787	0.903	A	1	A	B
43	2-Hexanone	43	6.866	0.913	A	3	A	B
44	Dibromochloromethane	129	6.988	0.930	A	2	A	B
45	1,2-Dibromoethane	107	7.092	0.943	A	1	A	B
46 P	Chlorobenzene	112	7.543	1.003	A	1	A	B
47	1,1,1,2-Tetrachloroethane	133	7.616	1.013	A	2	A	B
48 C	Ethylbenzene	91	7.646	1.017	A	1	A	B
49	m,p-Xylene	91	7.756	1.032	A	1	A	B
50	o-Xylene	91	8.128	1.081	A	1	A	B
51	Styrene	104	8.140	1.083	A	0	A	B
52 P	Bromoform	173	8.311	1.105	A	2	A	B
53	Isopropylbenzene	105	8.475	1.127	A	1	A	B
54 S	4-Bromofluorobenzene	95	8.616	1.146	A	2	A	B

55 I	1,4-Dichlorobenzene-d4	152	9.731	1.000	A	1	A	B
56	Bromobenzene	156	8.762	0.900	A	1	A	B
57 P	1,1,2,2-Tetrachloroethane	83	8.762	0.900	A	1	A	B
58	1,2,3-Trichloropropane	75	8.799	0.904	A	1	A	B
59	n-Propylbenzene	91	8.872	0.912	A	1	A	B
60	2-Chlorotoluene	126	8.951	0.920	A	1	A	B
61	4-Chlorotoluene	126	9.055	0.931	A	1	A	B
62	1,3,5-Trimethylbenzene	105	9.042	0.929	A	1	A	B
63	tert-Butylbenzene	119	9.353	0.961	A	1	A	B
64	1,2,4-Trimethylbenzene	105	9.402	0.966	A	1	A	B
65	sec-Butylbenzene	105	9.567	0.983	A	1	A	B
66	1,3-Dichlorobenzene	146	9.670	0.994	A	1	A	B
67	p-Isopropyltoluene	119	9.713	0.998	A	1	A	B
68	1,4-Dichlorobenzene	146	9.756	1.003	A	1	A	B
69	1,2-Dichlorobenzene	146	10.115	1.039	A	1	A	B
70	n-Butylbenzene	91	10.109	1.039	A	1	A	B
71	1,2-Dibromo-3-chloropropane	157	10.884	1.118	A	2	A	B
72	1,2,4-Trichlorobenzene	180	11.700	1.202	L	2	A	B
73	Hexachlorobutadiene	225	11.877	1.221	A	2	A	B
74	Naphthalene	128	11.944	1.227	L	1	A	B
75	1,2,3-Trichlorobenzene	180	12.182	1.252	L	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

M140429W.M Tue Apr 29 14:15:54 2014

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140429W.M
Title :
Last Update : Tue Apr 29 13:05:18 2014
Response Via : Initial Calibration

Calibration Files
.2 =M0429003.d 1 =M0429004.d 2 =M0429005.d 5 =M0429006.d 10 =M0429007.d 25 =M0429008.d
50 =M0429010.d .1 =M0716005.d

		Compound	.2	1	2	5	10	25	50	.1	Avg	%RSD
		ISTD										
1)	I	Pentafluorobenzene									0.490#	27.98
2)		Dichlorodifluo...	0.344	0.372	0.518	0.429	0.420	0.685	0.663		0.920	11.01
3)	P	Chloromethane	0.896	0.816	0.926	0.846	0.839	1.063	1.052		0.820#	10.68#
4)	C	Vinyl Chloride	0.743	0.733	0.835	0.782	0.771	0.959	0.915		0.434#	11.99
5)		Bromomethane	0.540	0.448	0.421	0.396	0.380	0.433	0.419		0.440#	6.83
6)		Chloroethane	0.486	0.410	0.422	0.425	0.418	0.476	0.442		0.939#	4.33
7)		Trichlorofluor...	0.960	0.914	0.903	0.910	0.904	1.005	0.973		0.990#	4.67#
8)	C	1,1-Dichloroet...	1.031	0.933	0.982	0.958	0.951	1.056	1.020		0.065#	14.62
9)		Acetone		0.075	0.078	0.060	0.059	0.059	0.057		0.655#	20.94
10)		Iodomethane		0.451	0.550	0.647	0.691	0.811	0.780		1.616#	6.84
11)		Carbon Disulfide	1.638	1.520	1.549	1.568	1.510	1.794	1.734		0.862#	4.48
12)		Methylene Chlo...		0.919	0.856	0.809	0.844	0.892	0.850		1.012#	3.92
13)		(trans) 1,2-Di...	1.054	0.980	0.981	1.004	0.965	1.062	1.042		0.635#	4.12
14)		Methyl t-Butyl...	0.618	0.615	0.621	0.628	0.618	0.677	0.669		1.144	3.56
15)	P	1,1-Dichloroet...	1.206	1.116	1.126	1.108	1.106	1.190	1.152		0.524#	20.77
16)		Vinyl Acetate		0.475	0.431	0.386	0.569	0.644	0.637		0.689#	7.40
17)		2,2-Dichloropr...	0.800	0.657	0.666	0.680	0.658	0.697	0.665		1.036#	4.03
18)		(cis) 1,2-Dich...	1.104	1.022	0.991	0.999	1.013	1.076	1.046		0.105#	6.65
19)		2-Butanone		0.118	0.105	0.100	0.103	0.104	0.098		0.240#	4.52
20)		Bromochloromet...	0.220	0.237	0.237	0.249	0.240	0.254	0.246		0.862#	2.39#
21)	C	Chloroform	0.838	0.850	0.847	0.871	0.854	0.899	0.872		0.831#	4.03
22)		1,1,1-Trichlor...	0.874	0.789	0.808	0.824	0.803	0.870	0.847		0.362#	1.52
23)	S	Dibromofluorom...	0.355	0.371	0.356	0.365	0.360	0.366	0.360		0.789#	2.65
24)		Carbon Tetrach...	0.789	0.778	0.766	0.796	0.767	0.823	0.806		0.726#	4.61
25)		1,1-Dichloropr...	0.783	0.708	0.681	0.721	0.710	0.754	0.728		1.986#	2.32
26)		Benzene	2.041	1.977	1.928	1.964	1.943	2.049	1.997		0.498#	2.94
27)		1,2-Dichloroet...	0.479	0.511	0.481	0.496	0.498	0.519	0.504			
		ISTD										
28)	I	1,4-Difluorobenzene									0.442#	3.82
29)		Trichloroethene	0.472	0.435	0.426	0.455	0.423	0.444	0.438		0.380#	4.26#
30)	C	1,2-Dichloropr...	0.360	0.361	0.374	0.382	0.384	0.401	0.398		0.137#	4.77
31)		Dibromomethane	0.130	0.133	0.130	0.142	0.137	0.148	0.140		0.361#	6.37
32)		Bromodichlorom...	0.325	0.338	0.359	0.373	0.363	0.388	0.382		0.003#	32.30
33)		2-Chloroethyl ...			0.002	0.003	0.003	0.004	0.004		0.379#	8.55
34)		(cis) 1,3-Dich...	0.325	0.357	0.363	0.389	0.390	0.416	0.410		0.134#	6.79
35)		Methyl Isobuty...	0.127	0.131	0.128	0.123	0.137	0.148	0.143		1.094#	0.77
36)	S	Toluene-d8	1.092	1.097	1.083	1.099	1.083	1.102	1.104		1.516#	3.51#
37)	C	Toluene	1.583	1.451	1.480	1.497	1.473	1.576	1.550			

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140429W.M
Title :

			ISTD								
38)	I	Chlorobenzene-d5							0.354	0.333#	6.45
39)		(trans) 1,3-Di...	0.312	0.313	0.307	0.338	0.348	0.356	0.209	0.206#	2.44
40)		1,1,2-Trichlor...	0.202	0.197	0.208	0.209	0.208	0.211	0.583	0.592#	4.92
41)		Tetrachloroethene	0.653	0.570	0.566	0.595	0.582	0.595	0.360	0.356#	2.50
42)		1,3-Dichloropr...	0.354	0.337	0.357	0.360	0.357	0.366	0.119	0.114#	8.28
43)		2-Hexanone	0.095	0.110	0.114	0.115	0.118	0.124	0.299	0.280#	5.51
44)		Dibromochlorom...	0.275	0.255	0.270	0.280	0.286	0.298	0.189	0.184#	4.13
45)		1,2-Dibromoethane	0.172	0.177	0.183	0.190	0.187	0.193	1.128	1.113	1.37
46)	P	Chlorobenzene	1.109	1.088	1.105	1.122	1.106	1.131	0.384	0.364#	4.97
47)		1,1,1,2-Tetrac...	0.349	0.336	0.356	0.372	0.370	0.383	2.219	2.126#	4.10#
48)	C	Ethylbenzene	2.133	1.989	2.050	2.125	2.127	2.238	1.655	1.582#	4.29
49)		m,p-Xylene	1.562	1.471	1.524	1.601	1.607	1.655	1.525	1.449#	5.08
50)		o-Xylene	1.406	1.322	1.413	1.469	1.478	1.527	1.182	1.115#	7.92
51)		Styrene	0.978	1.010	1.112	1.150	1.174	1.202	0.163	0.149	8.44
52)	P	Bromoform	0.129	0.136	0.148	0.149	0.155	0.161	1.944	1.839#	5.78
53)		Isopropylbenzene	1.687	1.739	1.782	1.853	1.897	1.968	0.424	0.430#	2.12
54)	S	4-Bromofluorob...	0.413	0.429	0.441	0.434	0.430	0.436			
			ISTD								
55)	I	1,4-Dichlorobenzen...							0.958	0.949#	3.89
56)		Bromobenzene	1.026	0.932	0.911	0.934	0.933	0.947	0.418	0.399	4.07
57)	P	1,1,2,2-Tetrac...	0.382	0.391	0.387	0.388	0.410	0.420	0.319	0.321#	4.47
58)		1,2,3-Trichlor...	0.343	0.339	0.308	0.305	0.321	0.316	5.195	5.027#	5.36
59)		n-Propylbenzene	5.443	4.757	4.678	4.924	4.997	5.194	1.046	1.015#	2.42
60)		2-Chlorotoluene	0.998	0.986	1.010	0.997	1.022	1.048	1.017	1.008#	2.04
61)		4-Chlorotoluene	1.044	1.002	0.985	0.995	0.992	1.021	3.927	3.759#	3.97
62)		1,3,5-Trimethy...	3.798	3.557	3.571	3.744	3.794	3.920	3.150	2.981#	3.95
63)		tert-Butylbenzene	2.974	2.880	2.824	2.921	3.011	3.106	3.671	3.490#	4.86
64)		1,2,4-Trimethy...	3.405	3.221	3.352	3.534	3.580	3.667	4.430	4.208#	4.13
65)		sec-Butylbenzene	4.117	3.959	4.085	4.165	4.304	4.396	1.701	1.651#	1.97
66)		1,3-Dichlorobe...	1.621	1.644	1.621	1.624	1.667	1.682	3.643	3.402#	6.10
67)		p-Isopropyltol...	3.277	3.140	3.181	3.418	3.522	3.632	1.756	1.714#	2.98
68)		1,4-Dichlorobe...	1.768	1.653	1.639	1.700	1.734	1.748	1.288	1.213#	4.94
69)		1,2-Dichlorobe...	1.146	1.136	1.189	1.209	1.271	1.253	3.214	3.009#	5.85
70)		n-Butylbenzene	3.059	2.824	2.742	2.965	3.078	3.178	0.068	0.062#	6.07
71)		1,2-Dibromo-3-...		0.058	0.061	0.059	0.064	0.065	0.504	0.415#	15.45
72)		1,2,4-Trichlor...	0.326	0.370	0.372	0.405	0.457	0.470	0.415	0.384#	8.26
73)		Hexachlorobuta...	0.390	0.336	0.350	0.377	0.407	0.415	0.616	0.465#	24.48
74)		Naphthalene		0.323	0.365	0.419	0.525	0.543	0.307	0.244#	20.41
75)		1,2,3-Trichlor...	0.173	0.208	0.208	0.242	0.283	0.285			

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429003.d
Acq On : 29 Apr 2014 8:22 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 29 08:35:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	550254	10.00 ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	768647	10.00 ppb		0.00
38) Chlorobenzene-d5	7.518	117	575048	10.00 ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	223845	10.00 ppb		0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	195561	7.80 ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery	= 78.00%		
36) Toluene-d8	6.220	98	839631	9.27 ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery	= 92.70%		
54) 4-Bromofluorobenzene	8.616	95	237535	9.31 ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery	= 93.10%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	3783	0.09 ppb		93
3) Chloromethane	1.343	50	9858	0.15 ppb		96
4) Vinyl Chloride	1.428	62	8172	0.15 ppb		94
5) Bromomethane	1.684	96	5948	0.23 ppb		90
6) Chloroethane	1.770	64	5352	0.19 ppb		93
7) Trichlorofluoromethane	1.977	101	10566	0.18 ppb		94
8) 1,1-Dichloroethene	2.416	61	11345	0.18 ppb		100
9) ~~Acetone~~	2.483	43	1501	Below Cal	#	82
10) ~~Iodomethane~~	2.538	142	3216	0.46 ppb		95
11) Carbon Disulfide	2.593	76	18022	0.18 ppb		96
12) ~~Methylene~~ Chloride	2.824	49	14552	0.27 ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	11604	0.18 ppb		96
14) Methyl t-Butyl Ether	3.068	73	6805	0.17 ppb		98
15) 1,1-Dichloroethane	3.409	63	13275	0.18 ppb		99
16) ~~Vinyl Acetate~~	3.458	43	7001	0.23 ppb	#	93
17) 2,2-Dichloropropane	3.891	77	8808	0.19 ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	12148	0.18 ppb		97
19) ~~2-Butanone~~	3.922	43	1405	0.21 ppb	#	53
20) Bromochloromethane	4.098	130	2423	0.17 ppb		94
21) Chloroform	4.165	83	9222	0.16 ppb		98
22) 1,1,1-Trichloroethane	4.312	97	9618	0.17 ppb	#	1
24) Carbon Tetrachloride	4.452	117	8682	0.17 ppb		94
25) 1,1-Dichloropropene	4.452	75	8622	0.18 ppb		100
26) Benzene	4.629	78	22458	0.18 ppb		98
27) 1,2-Dichloroethane	4.641	62	5275	0.15 ppb		97
29) Trichloroethene	5.171	130	7253	0.21 ppb		95
30) 1,2-Dichloropropane	5.360	63	5527	0.18 ppb		92
31) Dibromomethane	5.464	174	2001	0.20 ppb		92
32) Bromodichloromethane	5.598	83	4994	0.16 ppb		99
34) (cis) 1,3-Dichloropropene	5.982	75	4996	0.16 ppb		100
35) Methyl Isobutyl Ketone	6.122	43	1952	0.17 ppb	#	83
37) Toluene	6.275	91	24335	0.19 ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	3589	0.18 ppb		99
40) 1,1,2-Trichloroethane	6.634	97	2328	0.19 ppb		97
41) Tetrachloroethene	6.769	166	7509	0.24 ppb		97
42) 1,3-Dichloropropane	6.787	76	4070	0.19 ppb		90
43) 2-Hexanone	6.866	43	1091	0.15 ppb	#	75
44) Dibromochloromethane	6.988	129	3159	0.20 ppb		97
45) 1,2-Dibromoethane	7.092	107	1974	0.19 ppb		94

SD 4/29/14

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429003.d
Acq On : 29 Apr 2014 8:22 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 29 08:35:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) Chlorobenzene	7.543	112	12758	0.20	ppb		97
47) 1,1,1,2-Tetrachloroethane	7.622	133	4013	0.19	ppb		97
48) Ethylbenzene	7.646	91	24532	0.20	ppb		100
49) m,p-Xylene	7.756	91	35923	0.38	ppb		99
50) o-Xylene	8.128	91	16172	0.19	ppb		99
51) Styrene	8.140	104	11244	0.18	ppb		100
52) Bromoform	8.311	173	1482	0.19	ppb		93
53) Isopropylbenzene	8.476	105	19403	0.18	ppb		100
56) Bromobenzene	8.762	156	4592	0.23	ppb		97
57) 1,1,2,2-Tetrachloroethane	8.762	83	1708	0.17	ppb		96
58) 1,2,3-Trichloropropane	8.799	75	1535	0.20	ppb	#	100
59) n-Propylbenzene	8.872	91	24366	0.20	ppb		95
60) 2-Chlorotoluene	8.951	126	4468	0.19	ppb		98
61) 4-Chlorotoluene	9.055	126	4673	0.21	ppb		98
62) 1,3,5-Trimethylbenzene	9.043	105	17004	0.20	ppb		97
63) tert-Butylbenzene	9.353	119	13315	0.20	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	15244	0.19	ppb		98
65) sec-Butylbenzene	9.567	105	18431	0.19	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	7255	0.21	ppb		97
67) p-Isopropyltoluene	9.713	119	14673	0.19	ppb		96
68) 1,4-Dichlorobenzene	9.756	146	7914	0.22	ppb		88
69) 1,2-Dichlorobenzene	10.115	146	5130	0.20	ppb		96
70) n-Butylbenzene	10.109	91	13696	0.20	ppb		97
72) 1,2,4-Trichlorobenzene	11.707	180	1460	0.21	ppb		98
73) Hexachlorobutadiene	11.877	225	1745	0.27	ppb		93
74) ~~Naphthalene~~	11.944	128	1123	0.13	ppb	#	70
75) 1,2,3-Trichlorobenzene	12.188	180	773	0.30	ppb	#	77

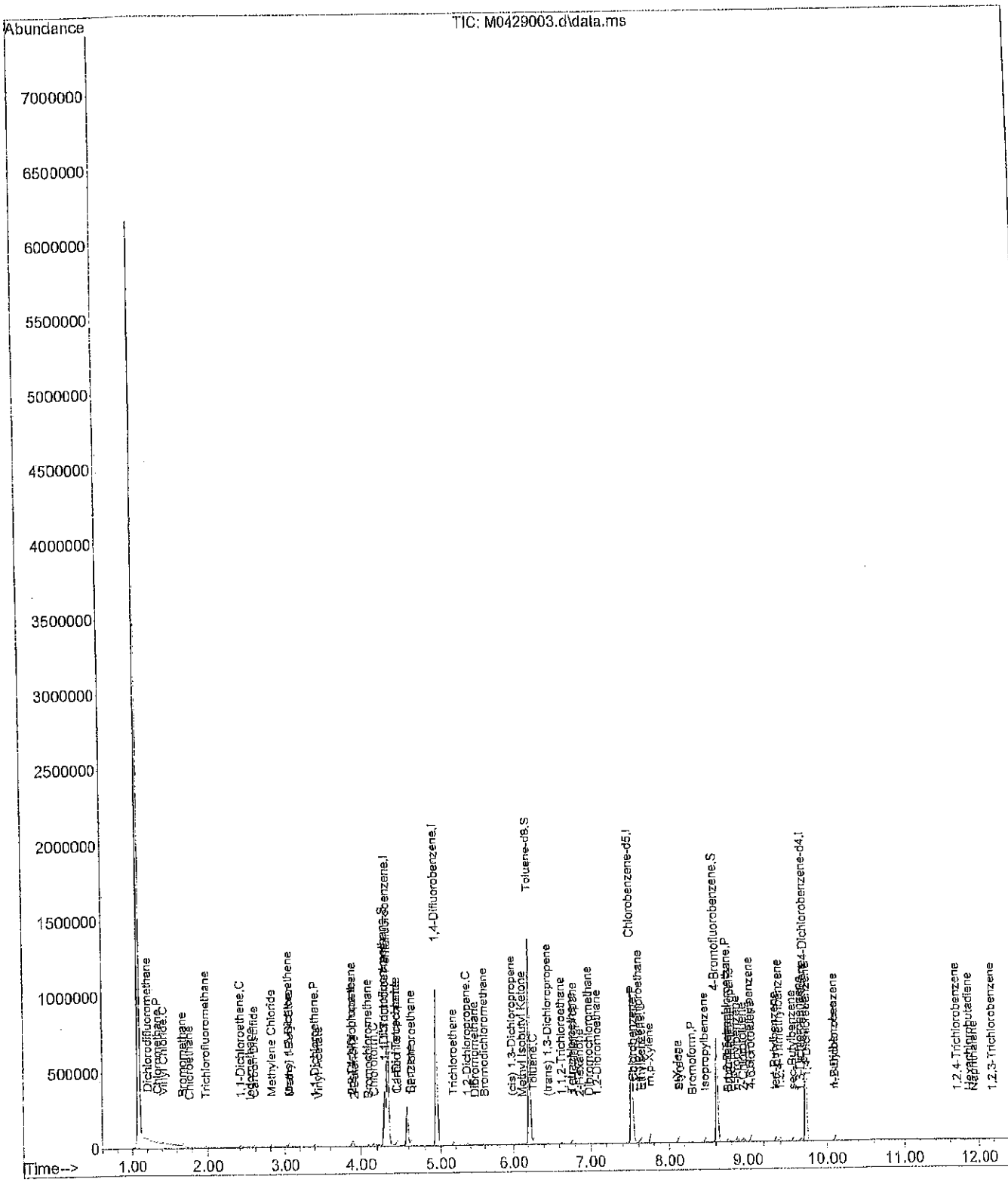
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SD 4-29-14

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429003.d
Acq On : 29 Apr 2014 8:22 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 29 08:35:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429004.d
Acq On : 29 Apr 2014 8:45 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 29 08:58:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	535221	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	768552	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	587469	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	241416	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	198339	8.14	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery	= 81.40%			
36) Toluene-d8	6.220	98	842821	9.31	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery	= 93.10%			
54) 4-Bromofluorobenzene	8.616	95	251795	9.66	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery	= 96.60%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	19889	0.48	ppb		100
3) Chloromethane	1.343	50	43671	0.69	ppb		99
4) Vinyl Chloride	1.428	62	39242	0.73	ppb		100
5) Bromomethane	1.684	96	23957	0.94	ppb		95
6) Chloroethane	1.769	64	21931	0.78	ppb		97
7) Trichlorofluoromethane	1.977	101	48945	0.85	ppb		100
8) 1,1-Dichloroethene	2.416	61	49927	0.81	ppb		99
9) Acetone	2.483	43	4032	0.53	ppb		92
10) Iodomethane	2.538	142	24115	0.95	ppb		92
11) Carbon Disulfide	2.592	76	81329	0.83	ppb		100
12) Methylene Chloride	2.824	49	49199	0.93	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	52456	0.85	ppb		100
14) Methyl t-Butyl Ether	3.068	73	32923	0.84	ppb		96
15) 1,1-Dichloroethane	3.409	63	59740	0.85	ppb		98
16) Vinyl Acetate	3.464	43	25430	0.85	ppb		99
17) 2,2-Dichloropropane	3.891	77	35190	0.78	ppb		98
18) (cis) 1,2-Dichloroethene	3.897	61	54683	0.84	ppb		100
19) 2-Butanone	3.928	43	6302	0.97	ppb	#	88
20) Bromochloromethane	4.098	130	12704	0.93	ppb		91
21) Chloroform	4.165	83	45499	0.82	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	42234	0.79	ppb	#	1
24) Carbon Tetrachloride	4.452	117	41614	0.83	ppb		96
25) 1,1-Dichloropropene	4.452	75	37882	0.81	ppb		100
26) Benzene	4.629	78	105812	0.86	ppb		97
27) 1,2-Dichloroethane	4.641	62	27344	0.81	ppb		98
29) Trichloroethene	5.171	130	33467	0.99	ppb		98
30) 1,2-Dichloropropane	5.360	63	27759	0.90	ppb		99
31) Dibromomethane	5.464	174	10231	1.03	ppb		98
32) Bromodichloromethane	5.598	83	25947	0.84	ppb		99
34) (cis) 1,3-Dichloropropene	5.982	75	27432	0.87	ppb		98
35) Methyl Isobutyl Ketone	6.122	43	10065	0.89	ppb	#	97
37) Toluene	6.281	91	111532	0.89	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	18387	0.89	ppb		96
40) 1,1,2-Trichloroethane	6.634	97	11554	0.93	ppb		95
41) Tetrachloroethene	6.768	166	33461	1.04	ppb		98
42) 1,3-Dichloropropane	6.781	76	19825	0.92	ppb		97
43) 2-Hexanone	6.866	43	6441	0.87	ppb	#	98
44) Dibromochloromethane	6.988	129	15000	0.93	ppb		99
45) 1,2-Dibromoethane	7.092	107	10397	0.96	ppb		97

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429004.d
Acq On : 29 Apr 2014 8:45 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 29 08:58:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

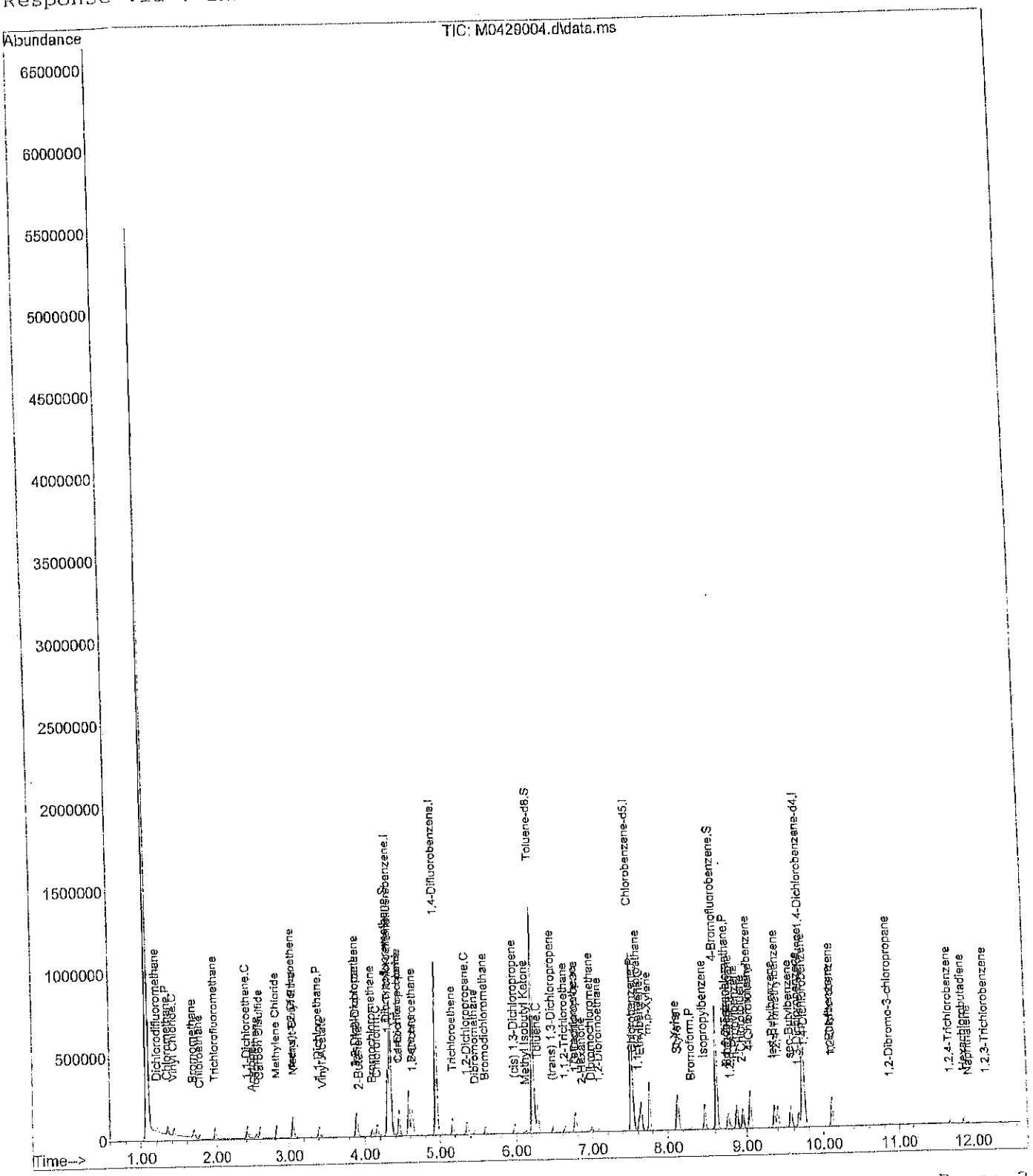
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) Chlorobenzene	7.543	112	63893	0.98	ppb		97
47) 1,1,1,2-Tetrachloroethane	7.616	133	19717	0.94	ppb		92
48) Ethylbenzene	7.646	91	116874	0.91	ppb		97
49) m,p-Xylene	7.756	91	172790	1.80	ppb		98
50) o-Xylene	8.128	91	77639	0.88	ppb		97
51) Styrene	8.140	104	59307	0.91	ppb		100
52) Bromoform	8.311	173	8011	0.98	ppb		96
53) Isopropylbenzene	8.475	105	102133	0.93	ppb		98
56) Bromobenzene	8.762	156	22496	1.03	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	9431	0.89	ppb		100
58) 1,2,3-Trichloropropane	8.799	75	8173	0.98	ppb	#	100
59) n-Propylbenzene	8.872	91	114835	0.89	ppb		99
60) 2-Chlorotoluene	8.951	126	23805	0.96	ppb		99
61) 4-Chlorotoluene	9.055	126	24186	0.99	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	85862	0.94	ppb		96
63) tert-Butylbenzene	9.353	119	69527	0.97	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	77759	0.92	ppb		98
65) sec-Butylbenzene	9.567	105	95576	0.92	ppb		97
66) 1,3-Dichlorobenzene	9.670	146	39694	1.05	ppb		98
67) p-Isopropyltoluene	9.713	119	75806	0.93	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	39916	1.01	ppb		95
69) 1,2-Dichlorobenzene	10.121	146	27428	1.00	ppb		97
70) n-Butylbenzene	10.109	91	68168	0.91	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	1393	1.15	ppb	#	74
72) 1,2,4-Trichlorobenzene	11.707	180	8921	1.18	ppb		95
73) Hexachlorobutadiene	11.883	225	8118	1.15	ppb		97
74) Naphthalene	11.944	128	7801	0.87	ppb		95
75) 1,2,3-Trichlorobenzene	12.182	180	5017	1.14	ppb		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429004.d
Acq On : 29 Apr 2014 8:45 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 29 08:58:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429005.d
Acq On : 29 Apr 2014 9:09 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 29 09:22:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	549077	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	779437	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	593647	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	253280	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	195744	7.83	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 78.30%				
36) Toluene-d8	6.220	98	844220	9.19	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 91.90%				
54) 4-Bromofluorobenzene	8.622	95	261838	9.94	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	56901	1.35	ppb		99
3) Chloromethane	1.343	50	101673	1.56	ppb		99
4) Vinyl Chloride	1.428	62	91734	1.67	ppb		99
5) Bromomethane	1.684	96	46257	1.77	ppb		98
6) Chloroethane	1.770	64	46309	1.61	ppb		98
7) Trichlorofluoromethane	1.977	101	99205	1.68	ppb		99
8) 1,1-Dichloroethene	2.416	61	107849	1.71	ppb		100
9) Acetone	2.483	43	8591	1.76	ppb		97
10) Iodomethane	2.538	142	60449	1.76	ppb		94
11) Carbon Disulfide	2.593	76	170067	1.69	ppb		99
12) Methylene Chloride	2.824	49	94046	1.73	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	107734	1.70	ppb		98
14) Methyl t-Butyl Ether	3.068	73	68215	1.70	ppb		98
15) 1,1-Dichloroethane	3.409	63	123613	1.71	ppb		99
16) Vinyl Acetate	3.464	43	47319	1.55	ppb		100
17) 2,2-Dichloropropane	3.891	77	73176	1.58	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	108850	1.63	ppb		99
19) 2-Butanone	3.928	43	11526	1.73	ppb		94
20) Bromochloromethane	4.098	130	26003	1.86	ppb		95
21) Chloroform	4.165	83	92983	1.62	ppb		99
22) 1,1,1-Trichloroethane	4.312	97	88752	1.61	ppb	#	1
24) Carbon Tetrachloride	4.452	117	84138	1.63	ppb		95
25) 1,1-Dichloropropene	4.452	75	74741	1.56	ppb		99
26) Benzene	4.629	78	211774	1.68	ppb		100
27) 1,2-Dichloroethane	4.641	62	52830	1.52	ppb		98
29) Trichloroethene	5.171	130	66421	1.93	ppb		97
30) 1,2-Dichloropropane	5.360	63	58360	1.86	ppb		99
31) Dibromomethane	5.464	174	20273	2.01	ppb		95
32) Bromodichloromethane	5.598	83	55958	1.79	ppb		96
33) 2-Chloroethyl Vinyl Ether	5.866	63	269	0.16	ppb	#	58
34) (cis) 1,3-Dichloropropene	5.982	75	56512	1.76	ppb		98
35) Methyl Isobutyl Ketone	6.122	43	20009	1.74	ppb	#	97
37) Toluene	6.275	91	230734	1.82	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	36451	1.74	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	24679	1.96	ppb		96
41) Tetrachloroethene	6.769	166	67215	2.08	ppb		100
42) 1,3-Dichloropropane	6.787	76	42396	1.94	ppb		99
43) 2-Hexanone	6.866	43	13539	1.81	ppb	#	99
44) Dibromochloromethane	6.988	129	32074	1.98	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429005.d
Acq On : 29 Apr 2014 9:09 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 29 09:22:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

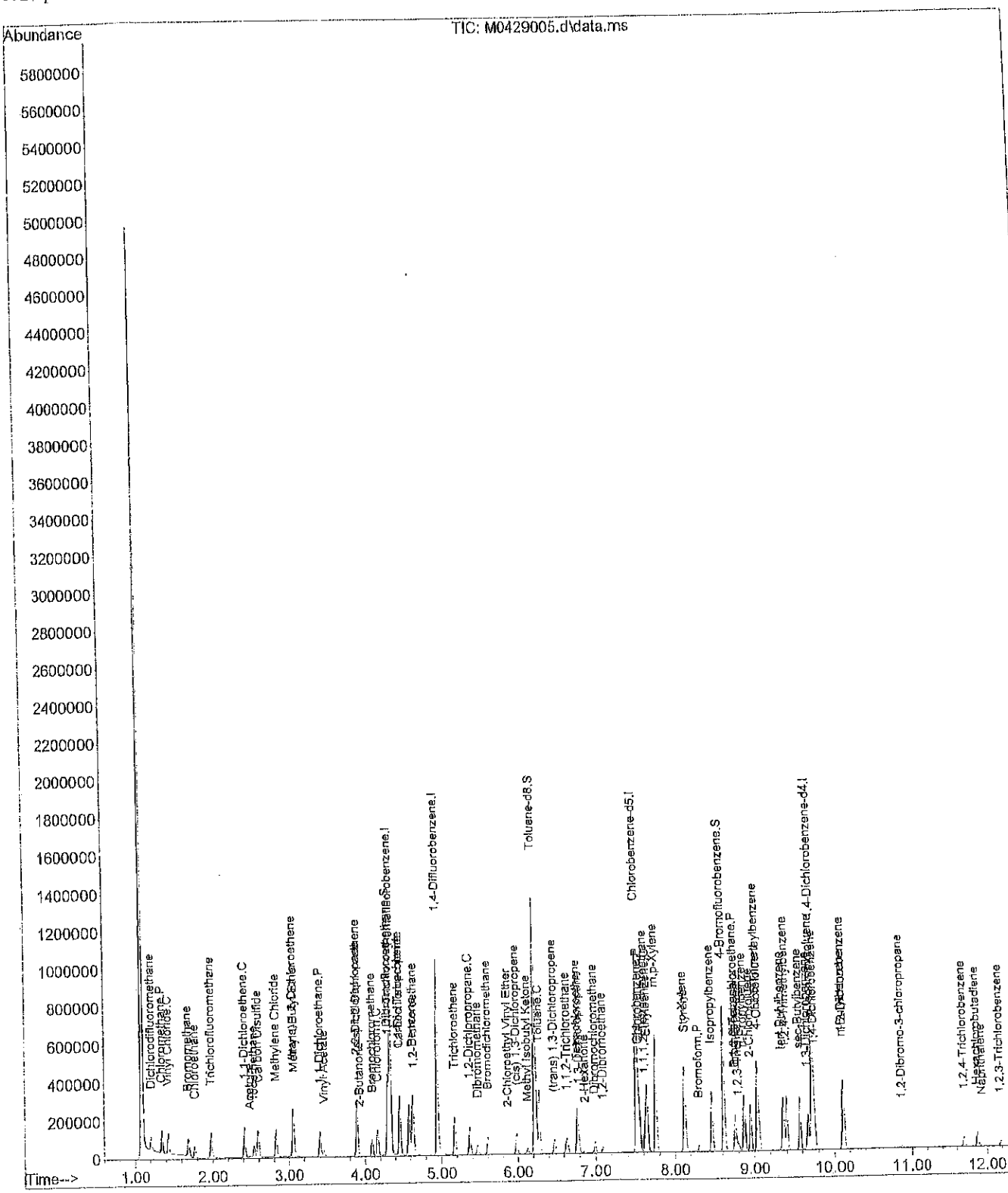
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	21685	1.97	ppb		99
46) Chlorobenzene	7.543	112	131148	1.98	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	42291	1.99	ppb		97
48) Ethylbenzene	7.646	91	243439	1.88	ppb		97
49) m,p-Xylene	7.756	91	362004	3.73	ppb		98
50) o-Xylene	8.128	91	167707	1.89	ppb		98
51) Styrene	8.140	104	132017	2.00	ppb		100
52) Bromoform	8.311	173	17626	2.14	ppb		98
53) Isopropylbenzene	8.476	105	211554	1.91	ppb		97
56) Bromobenzene	8.762	156	46158	2.01	ppb		95
57) 1,1,2,2-Tetrachloroethane	8.762	83	19587	1.76	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	15612	1.78	ppb	#	100
59) n-Propylbenzene	8.872	91	236953	1.75	ppb		97
60) 2-Chlorotoluene	8.951	126	51138	1.96	ppb		99
61) 4-Chlorotoluene	9.055	126	49917	1.95	ppb		97
62) 1,3,5-Trimethylbenzene	9.042	105	180885	1.89	ppb		99
63) tert-Butylbenzene	9.353	119	143067	1.90	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	169805	1.91	ppb		98
65) sec-Butylbenzene	9.567	105	206913	1.90	ppb		96
66) 1,3-Dichlorobenzene	9.670	146	82120	2.07	ppb		99
67) p-Isopropyltoluene	9.713	119	161149	1.88	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	83013	2.01	ppb		95
69) 1,2-Dichlorobenzene	10.115	146	60237	2.10	ppb		100
70) n-Butylbenzene	10.109	91	138894	1.78	ppb		95
71) 1,2-Dibromo-3-chloropr...	10.884	157	3092	2.44	ppb	#	93
72) 1,2,4-Trichlorobenzene	11.707	180	18839	2.38	ppb		98
73) Hexachlorobutadiene	11.883	225	17709	2.39	ppb		97
74) Naphthalene	11.944	128	18467	1.96	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	10556	2.15	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429005.d
Acq On : 29 Apr 2014 9:09 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 29 09:22:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429006.d
Acq On : 29 Apr 2014 9:32 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 29 09:45:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	549547	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	782310	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	596625	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	258777	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	200654	8.02	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.20%				
36) Toluene-d8	6.220	98	859958	9.33	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.30%				
54) 4-Bromofluorobenzene	8.616	95	259066	9.78	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.80%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	117982	2.80	ppb		99
3) Chloromethane	1.343	50	232357	3.57	ppb		99
4) Vinyl Chloride	1.428	62	214844	3.91	ppb		99
5) Bromomethane	1.684	96	108711	4.17	ppb		98
6) Chloroethane	1.769	64	116809	4.06	ppb		97
7) Trichlorofluoromethane	1.977	101	250137	4.23	ppb		99
8) 1,1-Dichloroethene	2.416	61	263311	4.17	ppb		100
9) Acetone	2.483	43	16402	3.91	ppb		93
10) Iodomethane	2.538	142	177835	4.41	ppb		95
11) Carbon Disulfide	2.592	76	430902	4.29	ppb		99
12) Methylene Chloride	2.824	49	222396	4.09	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	275905	4.34	ppb		100
14) Methyl t-Butyl Ether	3.068	73	172616	4.31	ppb		96
15) 1,1-Dichloroethane	3.409	63	304525	4.20	ppb		100
16) Vinyl Acetate	3.464	43	106199	3.47	ppb		97
17) 2,2-Dichloropropane	3.891	77	186764	4.03	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	274533	4.10	ppb		98
19) 2-Butanone	3.928	43	27465	4.13	ppb		98
20) Bromochloromethane	4.098	130	68460	4.88	ppb		86
21) Chloroform	4.165	83	239353	4.18	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	226341	4.10	ppb	#	39
24) Carbon Tetrachloride	4.458	117	218685	4.24	ppb		97
25) 1,1-Dichloropropene	4.452	75	198115	4.14	ppb		100
26) Benzene	4.629	78	539578	4.29	ppb		99
27) 1,2-Dichloroethane	4.641	62	136401	3.91	ppb		99
29) Trichloroethene	5.171	130	177853	5.15	ppb		99
30) 1,2-Dichloropropane	5.360	63	149390	4.74	ppb		99
31) Dibromomethane	5.464	174	55568	5.50	ppb		99
32) Bromodichloromethane	5.598	83	145998	4.66	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	999	0.59	ppb	#	58
34) (cis) 1,3-Dichloropropene	5.982	75	152267	4.73	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	48159	4.18	ppb		95
37) Toluene	6.275	91	585378	4.60	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	100970	4.81	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	62470	4.95	ppb		100
41) Tetrachloroethene	6.768	166	177638	5.46	ppb		99
42) 1,3-Dichloropropane	6.787	76	107420	4.89	ppb		97
43) 2-Hexanone	6.866	43	34435	4.57	ppb		99
44) Dibromochloromethane	6.988	129	83460	5.12	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429006.d
Acq On : 29 Apr 2014 9:32 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 29 09:45:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

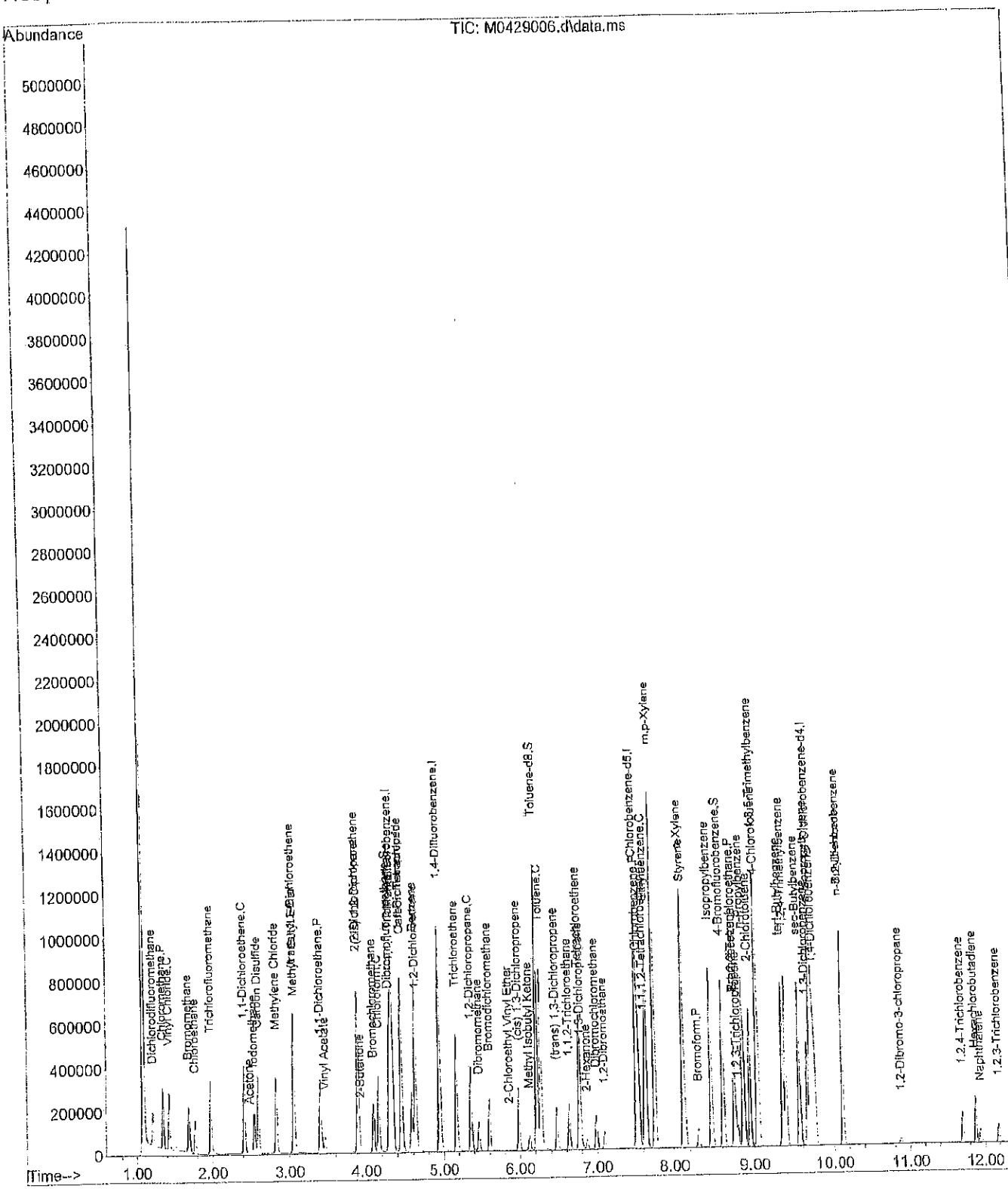
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	56729	5.14	ppb		99
46) Chlorobenzene	7.543	112	334765	5.04	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	111117	5.19	ppb		98
48) Ethylbenzene	7.646	91	633765	4.86	ppb		97
49) m,p-Xylene	7.756	91	955047	9.79	ppb		98
50) o-Xylene	8.128	91	438143	4.91	ppb		98
51) Styrene	8.140	104	343191	5.16	ppb		100
52) Bromoform	8.311	173	44563	5.38	ppb		99
53) Isopropylbenzene	8.475	105	552749	4.97	ppb		98
56) Bromobenzene	8.762	156	120845	5.16	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	50208	4.43	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	39472	4.41	ppb	#	100
59) n-Propylbenzene	8.872	91	637074	4.61	ppb		99
60) 2-Chlorotoluene	8.951	126	129033	4.85	ppb		99
61) 4-Chlorotoluene	9.055	126	128776	4.93	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	484446	4.96	ppb		97
63) tert-Butylbenzene	9.353	119	377936	4.91	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	457208	5.05	ppb		98
65) sec-Butylbenzene	9.567	105	538948	4.85	ppb		97
66) 1,3-Dichlorobenzene	9.670	146	210109	5.19	ppb		99
67) p-Isopropyltoluene	9.713	119	442294	5.06	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	219949	5.20	ppb		98
69) 1,2-Dichlorobenzene	10.115	146	156466	5.33	ppb		98
70) n-Butylbenzene	10.109	91	383573	4.80	ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	7649	5.91	ppb		94
72) 1,2,4-Trichlorobenzene	11.707	180	52456	6.48	ppb		96
73) Hexachlorobutadiene	11.877	225	48786	6.43	ppb		99
74) Naphthalene	11.944	128	54241	5.63	ppb		100
75) 1,2,3-Trichlorobenzene	12.182	180	31267	5.99	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429006.d
Acq On : 29 Apr 2014 9:32 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 29 09:45:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429007.d
Acq On : 29 Apr 2014 9:56 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 29 10:08:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene	4.336	168	549353	10.00 ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	782114	10.00 ppb	0.00
38) Chlorobenzene-d5	7.518	117	595948	10.00 ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	255139	10.00 ppb	0.00
System Monitoring Compounds					
23) Dibromofluoromethane	4.299	111	197525	7.90 ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery	= 79.00%	
36) Toluene-d8	6.220	98	847315	9.19 ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery	= 91.90%	
54) 4-Bromofluorobenzene	8.616	95	255983	9.68 ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery	= 96.80%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.209	85	230634	5.47 ppb	99
3) Chloromethane	1.343	50	460860	7.07 ppb	99
4) Vinyl Chloride	1.428	62	423675	7.72 ppb	99
5) Bromomethane	1.690	96	208994	8.01 ppb	99
6) Chloroethane	1.769	64	229356	7.97 ppb	99
7) Trichlorofluoromethane	1.977	101	496361	8.40 ppb	99
8) 1,1-Dichloroethene	2.416	61	522418	8.27 ppb	99
9) Acetone	2.483	43	32179	8.26 ppb	93
10) Iodomethane	2.538	142	379526	8.98 ppb	92
11) Carbon Disulfide	2.592	76	829606	8.26 ppb	100
12) Methylene Chloride	2.824	49	463423	8.53 ppb	100
13) (trans) 1,2-Dichloroet...	3.056	61	529853	8.33 ppb	99
14) Methyl t-Butyl Ether	3.068	73	339379	8.47 ppb	97
15) 1,1-Dichloroethane	3.409	63	607358	8.38 ppb	100
16) Vinyl Acetate	3.464	43	312513	10.20 ppb	99
17) 2,2-Dichloropropane	3.897	77	361318	7.81 ppb	99
18) (cis) 1,2-Dichloroethene	3.897	61	556258	8.31 ppb	99
19) 2-Butanone	3.928	43	56558	8.51 ppb	97
20) Bromochloromethane	4.098	130	131596	9.38 ppb	93
21) Chloroform	4.165	83	469225	8.19 ppb	99
22) 1,1,1-Trichloroethane	4.318	97	440917	7.98 ppb	94
24) Carbon Tetrachloride	4.458	117	421413	8.17 ppb	98
25) 1,1-Dichloropropene	4.452	75	390205	8.15 ppb	100
26) Benzene	4.629	78	1067527	8.48 ppb	99
27) 1,2-Dichloroethane	4.641	62	273780	7.86 ppb	99
29) Trichloroethene	5.171	130	331219	9.60 ppb	100
30) 1,2-Dichloropropane	5.360	63	300097	9.53 ppb	100
31) Dibromomethane	5.464	174	107509	10.63 ppb	99
32) Bromodichloromethane	5.598	83	283751	9.06 ppb	98
33) 2-Chloroethyl Vinyl Ether	5.860	63	2402	1.43 ppb #	58
34) (cis) 1,3-Dichloropropene	5.982	75	305057	9.48 ppb	100
35) Methyl Isobutyl Ketone	6.122	43	106806	9.28 ppb	99
37) Toluene	6.281	91	1151921	9.05 ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	207578	9.89 ppb	100
40) 1,1,2-Trichloroethane	6.634	97	123810	9.81 ppb	99
41) Tetrachloroethene	6.769	166	346674	10.66 ppb	100
42) 1,3-Dichloropropane	6.787	76	212827	9.71 ppb	99
43) 2-Hexanone	6.866	43	70040	9.31 ppb	98
44) Dibromochloromethane	6.988	129	170523	10.46 ppb	99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429007.d
Acq On : 29 Apr 2014 9:56 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 29 10:08:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

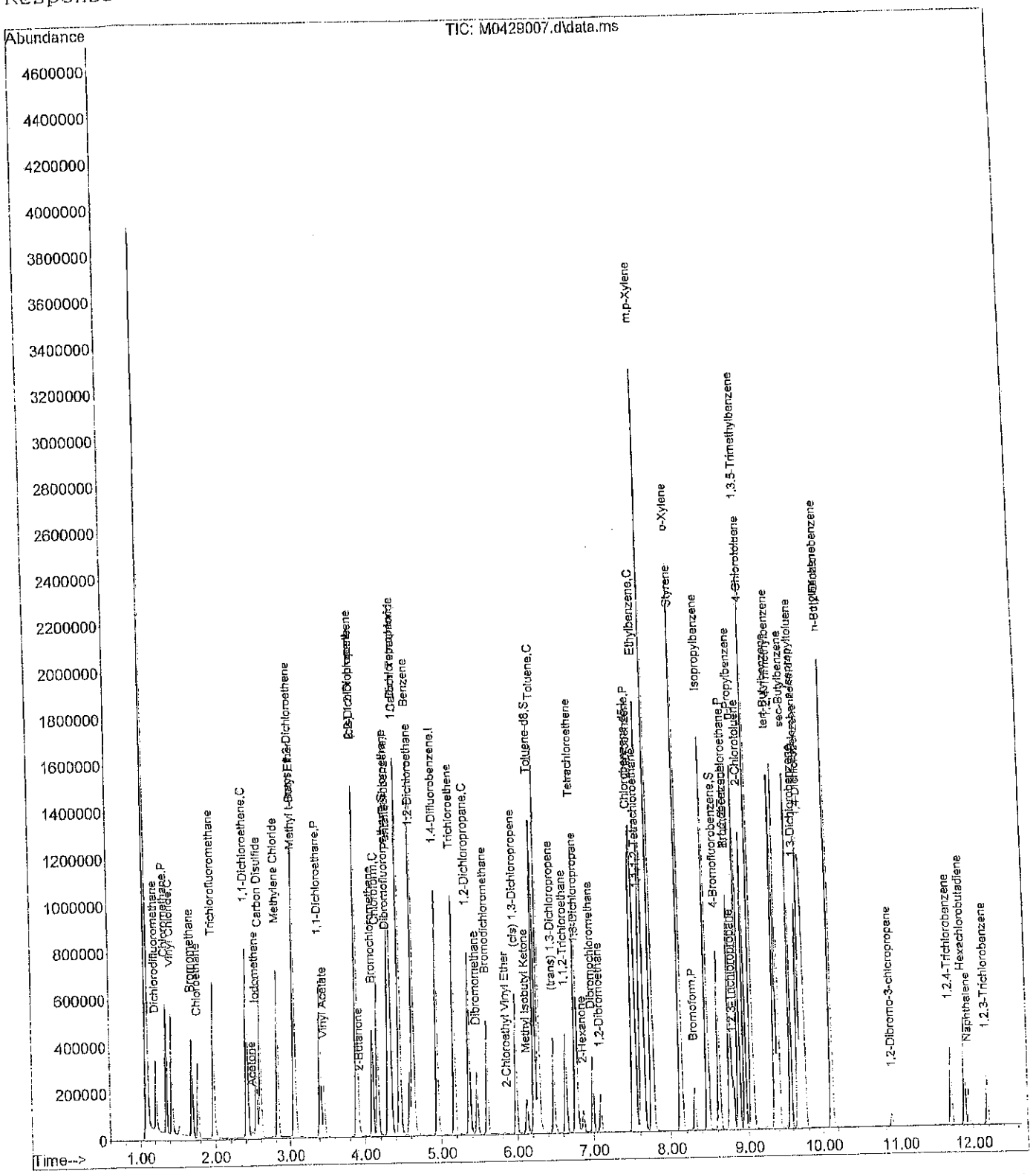
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	111691	10.13	ppb		99
46) Chlorobenzene	7.543	112	659300	9.94	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	220300	10.30	ppb		99
48) Ethylbenzene	7.646	91	1267331	9.73	ppb		98
49) m,p-Xylene	7.756	91	1915473	19.65	ppb		97
50) o-Xylene	8.128	91	881075	9.89	ppb		99
51) Styrene	8.140	104	699441	10.53	ppb		100
52) Bromoform	8.311	173	92597	11.19	ppb		98
53) Isopropylbenzene	8.475	105	1130399	10.17	ppb		98
56) Bromobenzene	8.762	156	238142	10.32	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	104614	9.36	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	81801	9.27	ppb	#	100
59) n-Propylbenzene	8.872	91	1275022	9.37	ppb		98
60) 2-Chlorotoluene	8.951	126	260706	9.94	ppb		100
61) 4-Chlorotoluene	9.055	126	252976	9.83	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	967965	10.04	ppb		97
63) tert-Butylbenzene	9.353	119	768277	10.12	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	913461	10.22	ppb		97
65) sec-Butylbenzene	9.567	105	1098176	10.03	ppb		98
66) 1,3-Dichlorobenzene	9.670	146	425294	10.67	ppb		99
67) p-Isopropyltoluene	9.713	119	898661	10.42	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	442331	10.61	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	324378	11.21	ppb		98
70) n-Butylbenzene	10.109	91	785400	9.97	ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	16255	12.74	ppb		93
72) 1,2,4-Trichlorobenzene	11.700	180	116474	14.58	ppb		99
73) Hexachlorobutadiene	11.877	225	103943	13.90	ppb		98
74) Naphthalene	11.944	128	133896	14.11	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	72277	13.88	ppb		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429007.d
Acq On : 29 Apr 2014 9:56 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 29 10:08:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429008.d
Acq On : 29 Apr 2014 10:19 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 29 10:32:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	552718	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	785759	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	615720	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	262850	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	202150	8.03	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.30%				
36) Toluene-d8	6.220	98	865667	9.35	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.50%				
54) 4-Bromofluorobenzene	8.622	95	268656	9.83	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	947155	22.33	ppb		100
3) Chloromethane	1.343	50	1468934	22.41	ppb		99
4) Vinyl Chloride	1.428	62	1325794	24.01	ppb		99
5) Bromomethane	1.690	96	598459	22.81	ppb		99
6) Chloroethane	1.769	64	657697	22.71	ppb		98
7) Trichlorofluoromethane	1.977	101	1388719	23.35	ppb		99
8) 1,1-Dichloroethene	2.416	61	1459215	22.96	ppb		100
9) Acetone	2.483	43	81673	21.77	ppb		96
10) Iodomethane	2.538	142	1121054	25.62	ppb		95
11) Carbon Disulfide	2.592	76	2478867	24.53	ppb		100
12) Methylene Chloride	2.824	49	1232571	22.55	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	1466932	22.93	ppb		100
14) Methyl t-Butyl Ether	3.068	73	935183	23.21	ppb		96
15) 1,1-Dichloroethane	3.409	63	1644756	22.56	ppb		99
16) Vinyl Acetate	3.464	43	889593	28.86	ppb		99
17) 2,2-Dichloropropane	3.897	77	963294	20.69	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	1487151	22.08	ppb		100
19) 2-Butanone	3.928	43	143591	21.46	ppb		96
20) Bromochloromethane	4.098	130	350306	24.83	ppb		93
21) Chloroform	4.165	83	1241787	21.55	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	1201613	21.63	ppb	#	69
24) Carbon Tetrachloride	4.458	117	1136900	21.90	ppb		98
25) 1,1-Dichloropropene	4.452	75	1041187	21.62	ppb		99
26) Benzene	4.629	78	2830663	22.35	ppb		99
27) 1,2-Dichloroethane	4.641	62	717481	20.46	ppb		100
29) Trichloroethene	5.171	130	872947	25.19	ppb		99
30) 1,2-Dichloropropane	5.360	63	786996	24.88	ppb		100
31) Dibromomethane	5.464	174	290067	28.56	ppb		99
32) Bromodichloromethane	5.598	83	761406	24.21	ppb		99
33) 2-Chloroethyl Vinyl Ether	5.866	63	7535	4.45	ppb	#	73
34) (cis) 1,3-Dichloropropene	5.982	75	817771	25.30	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	291347	25.19	ppb		98
37) Toluene	6.281	91	3096220	24.21	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	547902	25.28	ppb		100
40) 1,1,2-Trichloroethane	6.634	97	324684	24.91	ppb		100
41) Tetrachloroethene	6.769	166	915863	27.26	ppb		99
42) 1,3-Dichloropropane	6.787	76	562912	24.85	ppb		98
43) 2-Hexanone	6.866	43	191050	24.57	ppb		98
44) Dibromochloromethane	6.988	129	458203	27.22	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429008.d
Acq On : 29 Apr 2014 10:19 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 29 10:32:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

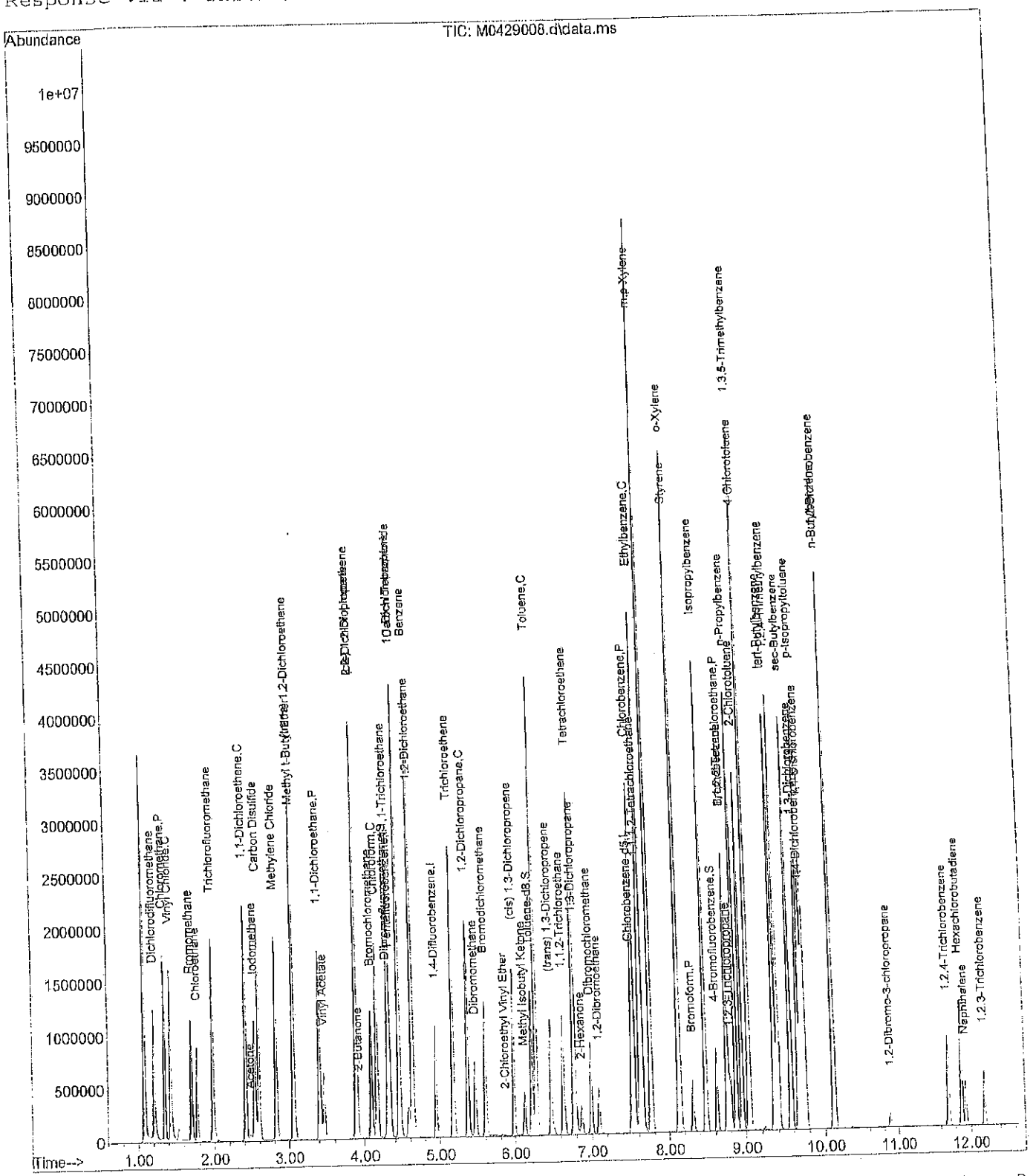
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	296547	26.03 ppb		97
46) Chlorobenzene	7.543	112	1741386	25.40 ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	589836	26.70 ppb		99
48) Ethylbenzene	7.646	91	3444537	25.59 ppb		99
49) m,p-Xylene	7.756	91	5095029	50.58 ppb		98
50) o-Xylene	8.128	91	2351048	25.55 ppb		98
51) Styrene	8.140	104	1850771	26.98 ppb		100
52) Bromoform	8.311	173	247276	28.92 ppb		98
53) Isopropylbenzene	8.475	105	3029744	26.38 ppb		99
56) Bromobenzene	8.762	156	622285	26.16 ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	275987	23.96 ppb		97
58) 1,2,3-Trichloropropane	8.799	75	207364	22.81 ppb	#	100
59) n-Propylbenzene	8.872	91	3413168	24.34 ppb		99
60) 2-Chlorotoluene	8.951	126	688982	25.50 ppb		99
61) 4-Chlorotoluene	9.055	126	671210	25.31 ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	2576139	25.94 ppb		98
63) tert-Butylbenzene	9.353	119	2040900	26.09 ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	2409428	26.18 ppb		97
65) sec-Butylbenzene	9.567	105	2888448	25.60 ppb		98
66) 1,3-Dichlorobenzene	9.670	146	1105244	26.90 ppb		99
67) p-Isopropyltoluene	9.713	119	2386697	26.86 ppb		100
68) 1,4-Dichlorobenzene	9.756	146	1148406	26.74 ppb		100
69) 1,2-Dichlorobenzene	10.115	146	823176	27.62 ppb		99
70) n-Butylbenzene	10.109	91	2088207	25.74 ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	42667	32.45 ppb		92
72) 1,2,4-Trichlorobenzene	11.707	180	309114	37.57 ppb		98
73) Hexachlorobutadiene	11.877	225	272928	35.44 ppb		100
74) Naphthalene	11.944	128	357030	36.51 ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	186996	34.66 ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429008.d
Acq On : 29 Apr 2014 10:19 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 29 10:32:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429010.d
Acq On : 29 Apr 2014 11:06 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 29 11:18:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	553064	10.00 ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	782743	10.00 ppb		0.00
38) Chlorobenzene-d5	7.518	117	607122	10.00 ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	253787	10.00 ppb		0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	199084	7.90 ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery	= 79.00%		
36) Toluene-d8	6.220	98	864297	9.37 ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery	= 93.70%		
54) 4-Bromofluorobenzene	8.622	95	257642	9.56 ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery	= 95.60%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	1832503	43.18 ppb		100
3) Chloromethane	1.343	50	2910390	44.38 ppb		99
4) Vinyl Chloride	1.428	62	2528972	45.78 ppb		99
5) Bromomethane	1.690	96	1159039	44.15 ppb		99
6) Chloroethane	1.769	64	1222307	42.19 ppb		99
7) Trichlorofluoromethane	1.977	101	2691673	45.24 ppb		100
8) 1,1-Dichloroethene	2.416	61	2821936	44.38 ppb		99
9) Acetone	2.483	43	158053	42.67 ppb		95
10) Iodomethane	2.538	142	2156824	48.91 ppb		93
11) Carbon Disulfide	2.592	76	4793717	47.42 ppb		100
12) Methylene Chloride	2.824	49	2350957	42.98 ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	2880372	44.99 ppb		100
14) Methyl t-Butyl Ether	3.068	73	1849756	45.87 ppb		95
15) 1,1-Dichloroethane	3.409	63	3186919	43.68 ppb		99
16) Vinyl Acetate	3.464	43	1762654	57.15 ppb		99
17) 2,2-Dichloropropane	3.897	77	1840257	39.50 ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	2892369	42.93 ppb		99
19) 2-Butanone	3.922	43	270858	40.46 ppb		98
20) Bromochloromethane	4.098	130	679522	48.13 ppb		92
21) Chloroform	4.165	83	2411301	41.82 ppb		100
22) 1,1,1-Trichloroethane	4.318	97	2342818	42.14 ppb	#	60
24) Carbon Tetrachloride	4.458	117	2229569	42.92 ppb		98
25) 1,1-Dichloropropene	4.452	75	2013745	41.79 ppb		100
26) Benzene	4.629	78	5523145	43.59 ppb		99
27) 1,2-Dichloroethane	4.641	62	1393012	39.70 ppb		100
29) Trichloroethene	5.171	130	1715291	49.68 ppb		100
30) 1,2-Dichloropropane	5.360	63	1557872	49.45 ppb		100
31) Dibromomethane	5.464	174	546976	54.06 ppb		99
32) Bromodichloromethane	5.598	83	1496778	47.77 ppb		98
33) 2-Chloroethyl Vinyl Ether	5.866	63	16470	9.77 ppb	#	75
34) (cis) 1,3-Dichloropropene	5.982	75	1606427	49.89 ppb		100
35) Methyl Isobutyl Ketone	6.122	43	558598	48.48 ppb		96
37) Toluene	6.281	91	6064438	47.60 ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	1075862	50.34 ppb		99
40) 1,1,2-Trichloroethane	6.634	97	635415	49.45 ppb		99
41) Tetrachloroethene	6.769	166	1769441	53.42 ppb		99
42) 1,3-Dichloropropane	6.787	76	1091661	48.88 ppb		98
43) 2-Hexanone	6.866	43	362451	47.27 ppb		96
44) Dibromochloromethane	6.988	129	906589	54.61 ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429010.d
Acq On : 29 Apr 2014 11:06 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 29 11:18:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

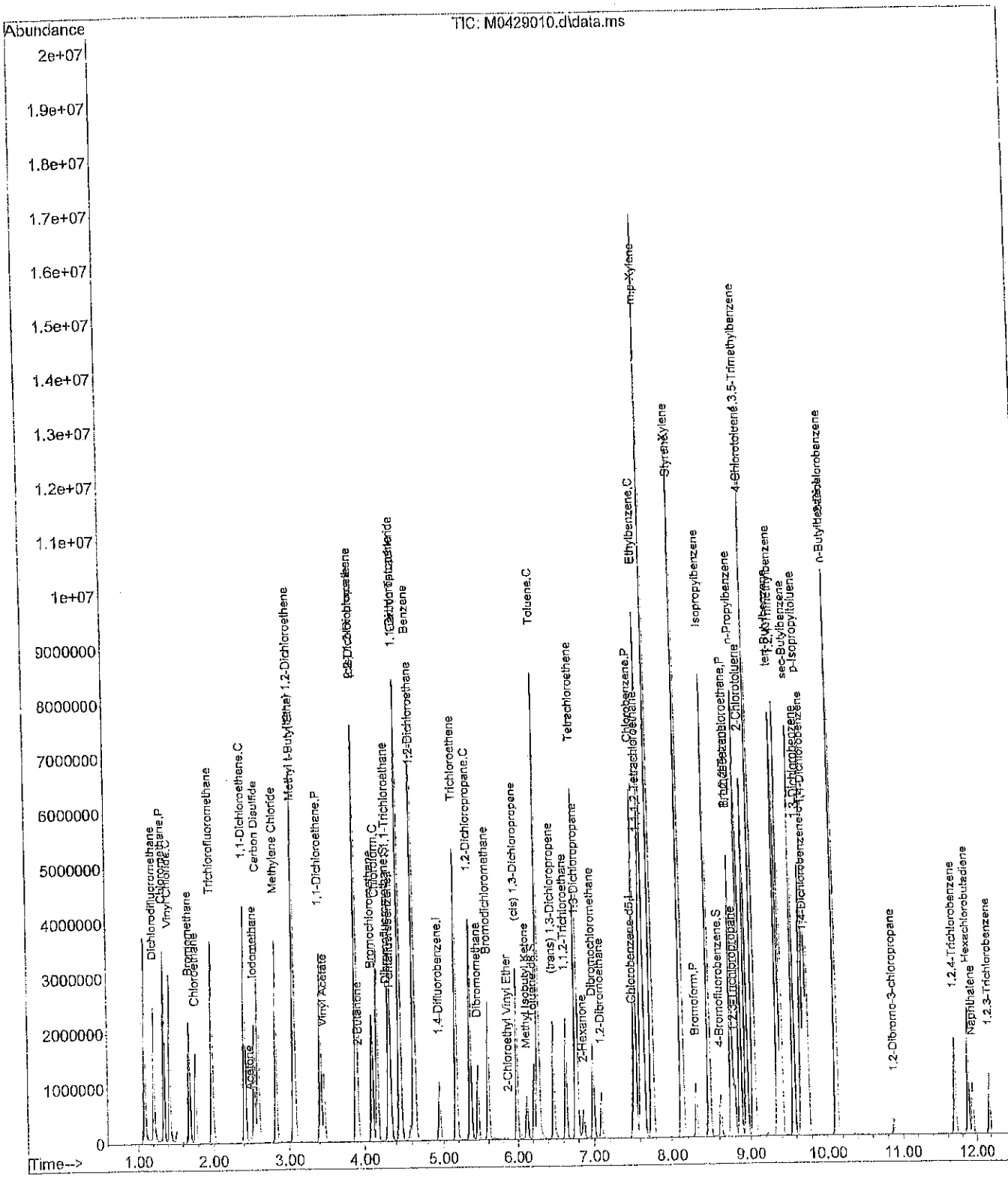
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	572300	50.95	ppb		98
46) Chlorobenzene	7.543	112	3422802	50.64	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.622	133	1165913	53.53	ppb		99
48) Ethylbenzene	7.646	91	6735262	50.74	ppb		99
49) m,p-Xylene	7.756	91	10044960	101.14	ppb		99
50) o-Xylene	8.128	91	4628655	51.01	ppb		99
51) Styrene	8.140	104	3588827	53.05	ppb		100
52) Bromoform	8.311	173	495750	58.81	ppb		99
53) Isopropylbenzene	8.475	105	5901746	52.11	ppb		99
56) Bromobenzene	8.762	156	1215842	52.95	ppb		97
57) 1,1,2,2-Tetrachloroethane	8.762	83	530951	47.74	ppb		99
58) 1,2,3-Trichloropropane	8.799	75	404272	46.05	ppb	#	100
59) n-Propylbenzene	8.872	91	6592244	48.69	ppb		99
60) 2-Chlorotoluene	8.951	126	1327794	50.90	ppb		100
61) 4-Chlorotoluene	9.055	126	1290977	50.42	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	4983662	51.98	ppb		98
63) tert-Butylbenzene	9.353	119	3996764	52.91	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	4658728	52.42	ppb		97
65) sec-Butylbenzene	9.567	105	5621191	51.59	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	2158815	54.43	ppb		100
67) p-Isopropyltoluene	9.713	119	4622966	53.88	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	2228247	53.73	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	1634296	56.80	ppb		99
70) n-Butylbenzene	10.109	91	4078715	52.07	ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	85991	67.74	ppb		94
72) 1,2,4-Trichlorobenzene	11.700	180	639708	80.53	ppb		98
73) Hexachlorobutadiene	11.883	225	526804	70.85	ppb		99
74) Naphthalene	11.944	128	781812	82.80	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	389575	74.65	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429010.d
Acq On : 29 Apr 2014 11:06 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 29 11:18:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429013.d
Acq On : 29 Apr 2014 12:16 pm
Operator :
Sample : ICV0429W1
Misc : V3-124-3
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 29 13:05:29 2014
Quant Method : C:\msdchem\1\methods\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:05:18 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene	4.336	168	545345	10.00 ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	778326	10.00 ppb	0.00
38) Chlorobenzene-d5	7.518	117	610930	10.00 ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	264489	10.00 ppb	0.00
System Monitoring Compounds					
23) Dibromofluoromethane	4.299	111	202700	10.27 ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.70%		
36) Toluene-d8	6.220	98	856602	10.06 ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.60%		
54) 4-Bromofluorobenzene	8.622	95	265291	10.11 ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 101.10%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.209	85	281146	8.68 ppb	99
3) Chloromethane	1.343	50	551018	10.99 ppb	99
4) Vinyl Chloride	1.428	62	467878	10.47 ppb	98
5) Bromomethane	1.684	96	228926	9.67 ppb	100
6) Chloroethane	1.763	64	237525	9.90 ppb	99
7) Trichlorofluoromethane	1.977	101	522177	10.20 ppb	99
8) 1,1-Dichloroethene	2.410	61	587745	10.88 ppb	99
9) Acetone	2.483	43	33240	9.42 ppb	99
10) Iodomethane	2.538	142	387012	9.52 ppb	98
11) Carbon Disulfide	2.592	76	891714	10.12 ppb	100
12) Methylene Chloride	2.824	49	459078	9.77 ppb	99
13) (trans) 1,2-Dichloroet...	3.056	61	563576	10.21 ppb	99
14) Methyl t-Butyl Ether	3.068	73	382041	11.03 ppb	99
15) 1,1-Dichloroethane	3.409	63	650614	10.43 ppb	100
16) Vinyl Acetate	3.464	43	108984	3.71 ppb	99
17) 2,2-Dichloropropane	3.891	77	348113	9.26 ppb	98
18) (cis) 1,2-Dichloroethene	3.897	61	574154	10.16 ppb	99
19) 2-Butanone	3.928	43	55291	9.69 ppb	98
20) Bromochloromethane	4.098	130	142145	10.85 ppb	98
21) Chloroform	4.165	83	499137	10.62 ppb	99
22) 1,1,1-Trichloroethane	4.318	97	467662	10.32 ppb	96
24) Carbon Tetrachloride	4.458	117	447108	10.39 ppb	100
25) 1,1-Dichloropropene	4.452	75	405103	10.23 ppb	100
26) Benzene	4.629	78	1108259	10.23 ppb	99
27) 1,2-Dichloroethane	4.641	62	285491	10.50 ppb	99
29) Trichloroethene	5.171	130	389153	11.31 ppb	100
30) 1,2-Dichloropropane	5.360	63	312689	10.57 ppb	99
31) Dibromomethane	5.464	174	114318	10.71 ppb	99
32) Bromodichloromethane	5.598	83	305687	10.88 ppb	99
33) 2-Chloroethyl Vinyl Ether	5.866	63	2166	8.18 ppb #	100
34) (cis) 1,3-Dichloropropene	5.982	75	317587	10.78 ppb	99
35) Methyl Isobutyl Ketone	6.122	43	107486	10.32 ppb	98
37) Toluene	6.281	91	1199856	10.17 ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	215501	10.60 ppb	99
40) 1,1,2-Trichloroethane	6.634	97	131426	10.43 ppb	98
41) Tetrachloroethene	6.768	166	361271	9.99 ppb	100
42) 1,3-Dichloropropane	6.787	76	226618	10.42 ppb	99
43) 2-Hexanone	6.866	43	71707	10.33 ppb	95
44) Dibromochloromethane	6.988	129	186776	10.91 ppb	98

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429013.d
Acq On : 29 Apr 2014 12:16 pm
Operator :
Sample : ICV0429W1
Misc : V3-124-3
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 29 13:05:29 2014
Quant Method : C:\msdchem\1\methods\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:05:18 2014
Response via : Initial Calibration

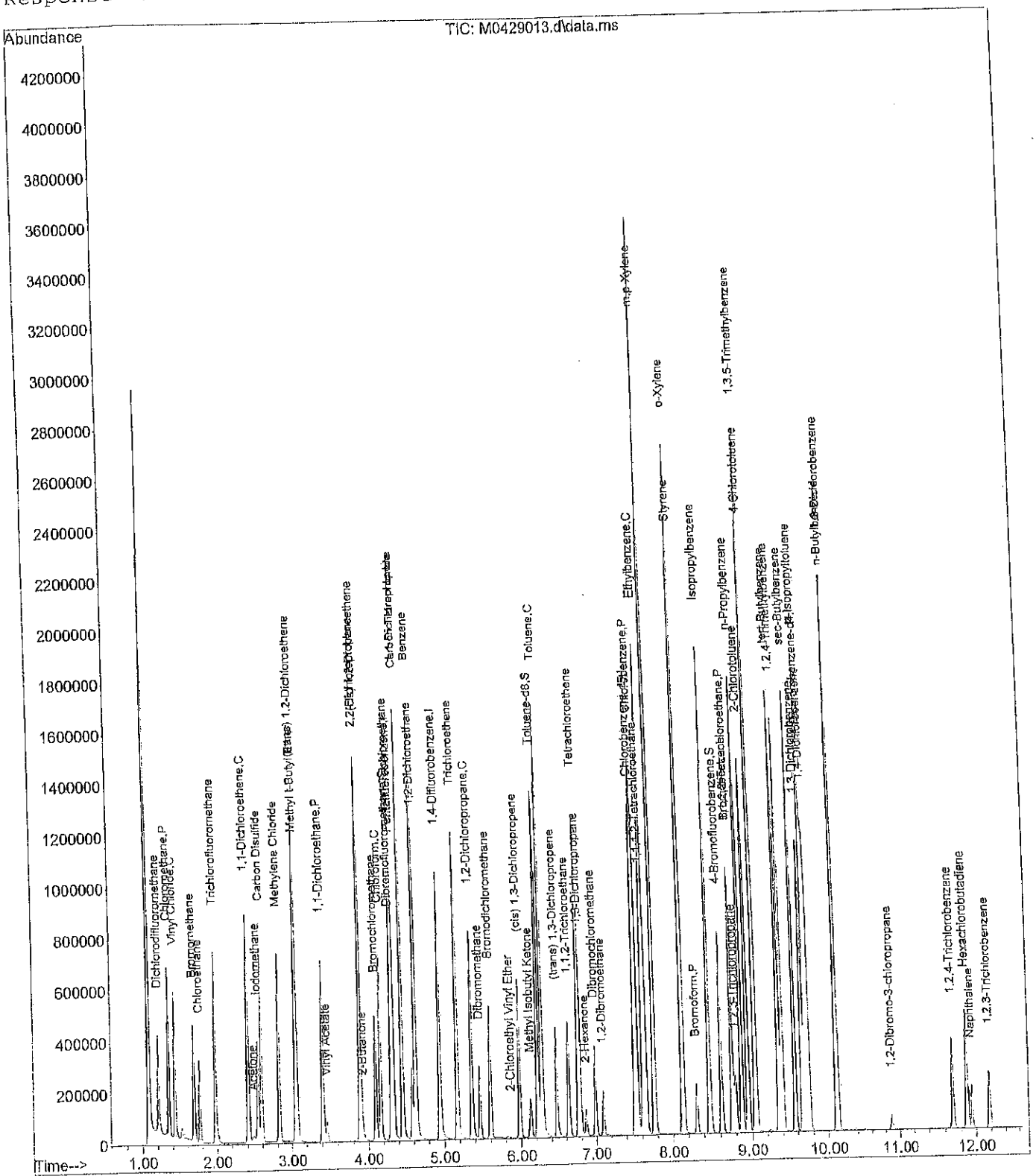
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	121208	10.77	ppb		100
46) Chlorobenzene	7.543	112	754958	11.11	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	232738	10.46	ppb		100
48) Ethylbenzene	7.646	91	1325946	10.21	ppb		100
49) m,p-Xylene	7.756	91	2074583	21.46	ppb		100
50) o-Xylene	8.128	91	1012622	11.44	ppb		100
51) Styrene	8.140	104	733805	10.77	ppb		100
52) Bromoform	8.311	173	97875	10.76	ppb		98
53) Isopropylbenzene	8.475	105	1298630	11.56	ppb		99
56) Bromobenzene	8.762	156	258343	10.30	ppb		100
57) 1,1,2,2-Tetrachloroethane	8.762	83	94716	8.97	ppb		100
58) 1,2,3-Trichloropropane	8.799	75	87991	10.35	ppb	#	100
59) n-Propylbenzene	8.872	91	1443555	10.86	ppb		99
60) 2-Chlorotoluene	8.951	126	303283	11.29	ppb		98
61) 4-Chlorotoluene	9.055	126	295001	11.06	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	1002765	10.09	ppb		99
63) tert-Butylbenzene	9.353	119	878287	11.14	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	943689	10.22	ppb		99
65) sec-Butylbenzene	9.567	105	1240305	11.14	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	499116	11.43	ppb		98
67) p-Isopropyltoluene	9.713	119	993346	11.04	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	457850	10.10	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	375678	11.71	ppb		99
70) n-Butylbenzene	10.109	91	796584	10.01	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	17314	10.49	ppb		95
72) 1,2,4-Trichlorobenzene	11.707	180	129758	10.25	ppb		98
73) Hexachlorobutadiene	11.883	225	102981	10.13	ppb		97
74) Naphthalene	11.944	128	143524	9.83	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	78512	10.23	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429013.d
Acq On : 29 Apr 2014 12:16 pm
Operator :
Sample : ICV0429W1
Misc : V3-124-3
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 29 13:05:29 2014
Quant Method : C:\msdchem\1\methods\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:05:18 2014
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430002.d
Acq On : 30 Apr 2014 7:30 am
Operator :
Sample : CCV0430W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 30 07:43:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	10.000	10.000	0.0	94	0.00
2		Dichlorodifluoromethane	10.000	10.848	-8.5	148	0.00
3	P	Chloromethane	10.000	11.173	-11.7	115	0.00
4	C	Vinyl Chloride	10.000	11.262	-12.6#	112	0.00
5		Bromomethane	10.000	9.900	1.0	106	0.00
6		Chloroethane	10.000	10.644	-6.4	105	0.00
7		Trichlorofluoromethane	10.000	10.814	-8.1	105	0.00
8	C	1,1-Dichloroethene	10.000	11.105	-11.1#	108	0.00
9		Acetone	10.000	7.124	28.8#	74	0.00
10		Iodomethane	10.000	9.926	0.7	101	0.00
11		Carbon Disulfide	10.000	11.413	-14.1	114	0.00
12		Methylene Chloride	10.000	9.455	5.4	91	0.00
13		(trans) 1,2-Dichloroethene	10.000	10.821	-8.2	106	0.00
14		Methyl t-Butyl Ether	10.000	7.863	21.4#	76	0.00
15	P	1,1-Dichloroethane	10.000	10.374	-3.7	101	0.00
16		Vinyl Acetate	10.000	8.174	18.3	80	0.00
17		2,2-Dichloropropane	10.000	11.312	-13.1	111	0.00
18		(cis) 1,2-Dichloroethene	10.000	10.186	-1.9	98	0.00
19		2-Butanone	10.000	7.866	21.3#	75	0.00
20		Bromochloromethane	10.000	9.223	7.8	87	0.00
21	C	Chloroform	10.000	9.989	0.1#	94	0.00
22		1,1,1-Trichloroethane	10.000	10.956	-9.6	106	0.00
23	S	Dibromofluoromethane	10.000	9.101	9.0	86	0.00
24		Carbon Tetrachloride	10.000	11.034	-10.3	106	0.00
25		1,1-Dichloropropene	10.000	10.720	-7.2	103	0.00
26		Benzene	10.000	10.332	-3.3	99	0.00
27		1,2-Dichloroethane	10.000	9.179	8.2	86	0.00
28	I	1,4-Difluorobenzene	10.000	10.000	0.0	91	0.00
29		Trichloroethene	10.000	10.570	-5.7	101	0.00
30	C	1,2-Dichloropropane	10.000	10.004	-0.0#	90	0.00
31		Dibromomethane	10.000	8.857	11.4	81	0.00
32		Bromodichloromethane	10.000	9.756	2.4	89	0.00
33		2-Chloroethyl Vinyl Ether	10.000	6.836	31.6#	66	0.00
34		(cis) 1,3-Dichloropropene	10.000	9.665	3.4	86	0.00
35		Methyl Isobutyl Ketone	10.000	7.706	22.9#	69	0.00
36	S	Toluene-d8	10.000	10.114	-1.1	93	0.00
37	C	Toluene	10.000	10.608	-6.1#	100	0.00
38	I	Chlorobenzene-d5	10.000	10.000	0.0	85	0.00
39		(trans) 1,3-Dichloropropene	10.000	9.912	0.9	80	0.00
40		1,1,2-Trichloroethane	10.000	9.870	1.3	83	0.00
41		Tetrachloroethene	10.000	11.951	-19.5	103	0.00
42		1,3-Dichloropropane	10.000	9.677	3.2	82	0.00
43		2-Hexanone	10.000	8.160	18.4	67	0.00
44		Dibromochloromethane	10.000	9.860	1.4	82	0.00
45		1,2-Dibromoethane	10.000	9.535	4.6	80	0.00
46	P	Chlorobenzene	10.000	10.792	-7.9	92	0.00
47		1,1,1,2-Tetrachloroethane	10.000	10.455	-4.6	87	0.00
48	C	Ethylbenzene	10.000	11.962	-19.6#	101	0.00

Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430002.d
Acq On : 30 Apr 2014 7:30 am
Operator :
Sample : CCV0430W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 30 07:43:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49		m,p-Xylene	20.000	23.734	-18.7	99	0.00
50		o-Xylene	10.000	11.345	-13.5	94	0.00
51		Styrene	10.000	11.121	-11.2	90	0.00
52	P	Bromoform	10.000	9.501	5.0	77	0.00
53		Isopropylbenzene	10.000	12.441	-24.4#	102	0.00
54	S	4-Bromofluorobenzene	10.000	9.512	4.9	81	0.00
55	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	79	0.00
56		Bromobenzene	10.000	10.584	-5.8	85	0.00
57	P	1,1,2,2-Tetrachloroethane	10.000	9.429	5.7	73	0.00
58		1,2,3-Trichloropropane	10.000	9.185	8.1	73	0.00
59		n-Propylbenzene	10.000	12.752	-27.5#	101	0.00
60		2-Chlorotoluene	10.000	11.840	-18.4	93	0.00
61		4-Chlorotoluene	10.000	11.426	-14.3	92	0.00
62		1,3,5-Trimethylbenzene	10.000	12.268	-22.7#	96	0.00
63		tert-Butylbenzene	10.000	12.882	-28.8#	101	0.00
64		1,2,4-Trimethylbenzene	10.000	11.965	-19.6	92	0.00
65		sec-Butylbenzene	10.000	13.179	-31.8#	102	0.00
66		1,3-Dichlorobenzene	10.000	10.774	-7.7	84	0.00
67		p-Isopropyltoluene	10.000	12.842	-28.4#	98	0.00
68		1,4-Dichlorobenzene	10.000	10.570	-5.7	83	0.00
69		1,2-Dichlorobenzene	10.000	10.411	-4.1	78	0.00
70		n-Butylbenzene	10.000	12.435	-24.4#	96	0.00
71		1,2-Dibromo-3-chloropropane	10.000	8.352	16.5	65	0.00
72		1,2,4-Trichlorobenzene	10.000	6.782	32.2#	56	0.00
73		Hexachlorobutadiene	10.000	9.472	5.3	71	0.00
74		Naphthalene	10.000	5.763	42.4#	45	0.00
75		1,2,3-Trichlorobenzene	10.000	6.043	39.6#	48	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430002.d
Acq On : 30 Apr 2014 7:30 am
Operator :
Sample : CCV0430W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 30 07:43:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	514813	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	713570	10.00	ppb		0.00
38) Chlorobenzene-d5	7.519	117	505358	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.732	152	201441	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	169527	9.10	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 91.00%				
36) Toluene-d8	6.220	98	789819	10.11	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 101.10%				
54) 4-Bromofluorobenzene	8.616	95	206508	9.51	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 95.10%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	341059	10.85	ppb		99
3) Chloromethane	1.343	50	528976	11.17	ppb		100
4) Vinyl Chloride	1.428	62	475278	11.26	ppb		98
5) Bromomethane	1.690	96	221178	9.90	ppb		100
6) Chloroethane	1.770	64	240974	10.64	ppb		99
7) Trichlorofluoromethane	1.983	101	522528	10.81	ppb		99
8) 1,1-Dichloroethene	2.416	61	566097	11.10	ppb		99
9) Acetone	2.483	43	23721	7.12	ppb		100
10) Iodomethane	2.538	142	381852	9.93	ppb		98
11) Carbon Disulfide	2.593	76	949447	11.41	ppb		99
12) Methylene Chloride	2.824	49	419465	9.45	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	564036	10.82	ppb		98
14) Methyl t-Butyl Ether	3.062	73	257125	7.86	ppb		98
15) 1,1-Dichloroethane	3.410	63	610715	10.37	ppb		100
16) Vinyl Acetate	3.458	43	248829	8.17	ppb		100
17) 2,2-Dichloropropane	3.891	77	401333	11.31	ppb		98
18) (cis) 1,2-Dichloroethene	3.897	61	543183	10.19	ppb		99
19) 2-Butanone	3.922	43	42350	7.87	ppb		99
20) Bromochloromethane	4.098	130	114113	9.22	ppb		99
21) Chloroform	4.166	83	443031	9.99	ppb		100
22) 1,1,1-Trichloroethane	4.318	97	468512	10.96	ppb		93
24) Carbon Tetrachloride	4.458	117	448338	11.03	ppb		100
25) 1,1-Dichloropropene	4.452	75	400881	10.72	ppb		99
26) Benzene	4.629	78	1056145	10.33	ppb		100
27) 1,2-Dichloroethane	4.641	62	235532	9.18	ppb		99
29) Trichloroethene	5.171	130	333403	10.57	ppb		98
30) 1,2-Dichloropropane	5.360	63	271194	10.00	ppb		100
31) Dibromomethane	5.464	174	86704	8.86	ppb		98
32) Bromodichloromethane	5.598	83	251367	9.76	ppb		99
33) 2-Chloroethyl Vinyl Ether	5.866	63	1583	6.84	ppb	#	100
34) (cis) 1,3-Dichloropropene	5.982	75	261150	9.67	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	73609	7.71	ppb		98
37) Toluene	6.275	91	1147260	10.61	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	166669	9.91	ppb		98
40) 1,1,2-Trichloroethane	6.635	97	102921	9.87	ppb		98
41) Tetrachloroethene	6.769	166	357507	11.95	ppb		100
42) 1,3-Dichloropropane	6.787	76	174025	9.68	ppb		100
43) 2-Hexanone	6.866	43	46836	8.16	ppb	#	99
44) Dibromochloromethane	6.988	129	139684	9.86	ppb		98

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430002.d
Acq On : 30 Apr 2014 7:30 am
Operator :
Sample : CCV0430W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 30 07:43:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

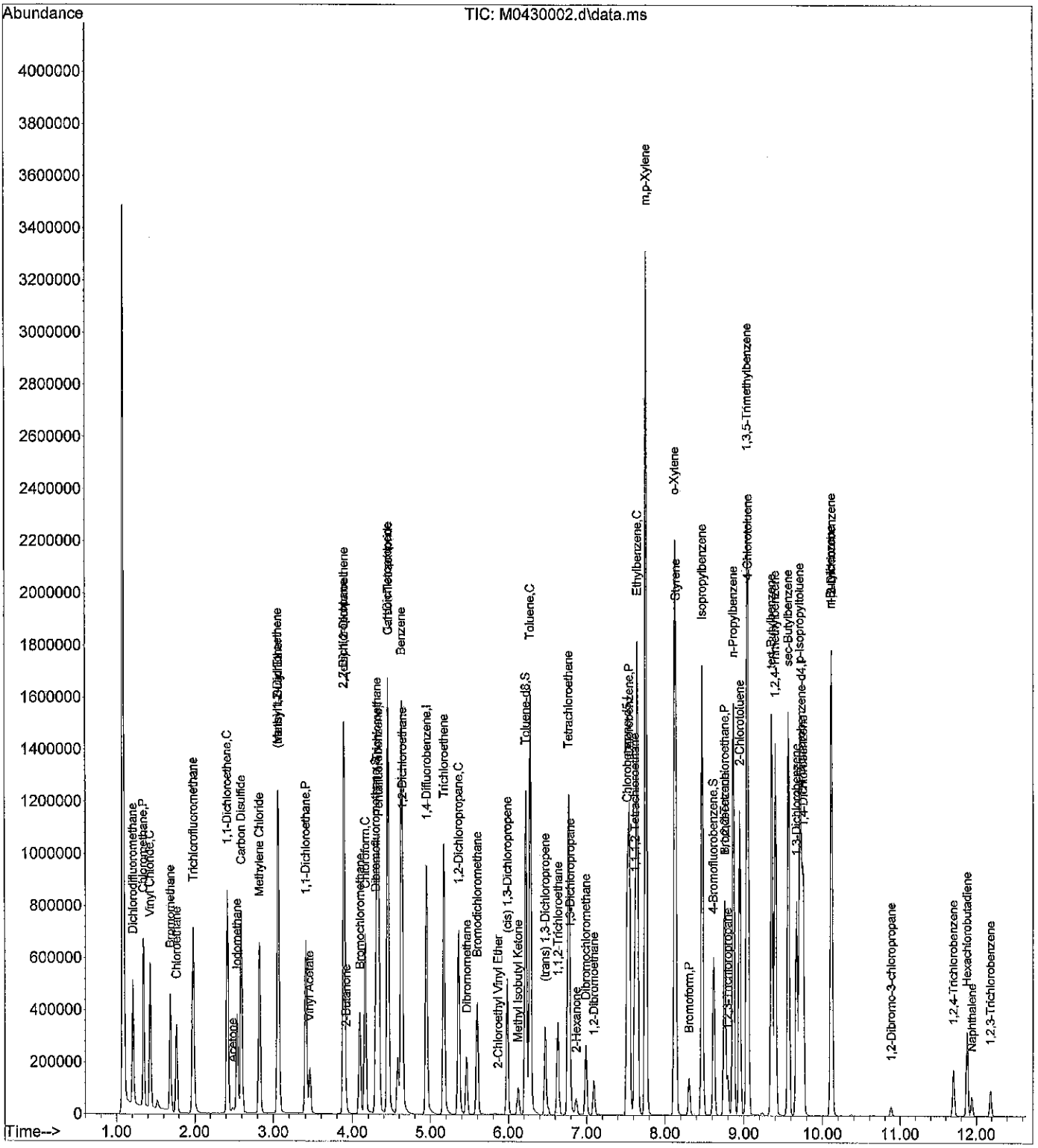
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	88800	9.53	ppb		100
46) Chlorobenzene	7.543	112	606856	10.79	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	192476	10.45	ppb		99
48) Ethylbenzene	7.647	91	1285015	11.96	ppb		100
49) m,p-Xylene	7.756	91	1897541	23.73	ppb		100
50) o-Xylene	8.128	91	830481	11.35	ppb		100
51) Styrene	8.140	104	626887	11.12	ppb		100
52) Bromoform	8.311	173	71499	9.50	ppb		98
53) Isopropylbenzene	8.476	105	1155926	12.44	ppb		99
56) Bromobenzene	8.762	156	202269	10.58	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	75847	9.43	ppb		100
58) 1,2,3-Trichloropropane	8.799	75	59457	9.18	ppb	#	100
59) n-Propylbenzene	8.872	91	1291254	12.75	ppb		100
60) 2-Chlorotoluene	8.951	126	242165	11.84	ppb		98
61) 4-Chlorotoluene	9.055	126	232026	11.43	ppb		99
62) 1,3,5-Trimethylbenzene	9.043	105	928858	12.27	ppb		99
63) tert-Butylbenzene	9.354	119	773529	12.88	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	841190	11.97	ppb		99
65) sec-Butylbenzene	9.567	105	1117087	13.18	ppb		100
66) 1,3-Dichlorobenzene	9.671	146	358399	10.77	ppb		99
67) p-Isopropyltoluene	9.713	119	880055	12.84	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	364936	10.57	ppb		99
69) 1,2-Dichlorobenzene	10.116	146	254428	10.41	ppb		98
70) n-Butylbenzene	10.110	91	753591	12.43	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	10494	8.35	ppb		99
72) 1,2,4-Trichlorobenzene	11.701	180	64866	6.78	ppb		96
73) Hexachlorobutadiene	11.877	225	73342	9.47	ppb		99
74) Naphthalene	11.945	128	60612	5.76	ppb		98
75) 1,2,3-Trichlorobenzene	12.182	180	34901	6.04	ppb		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430002.d
Acq On : 30 Apr 2014 7:30 am
Operator :
Sample : CCV0430W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

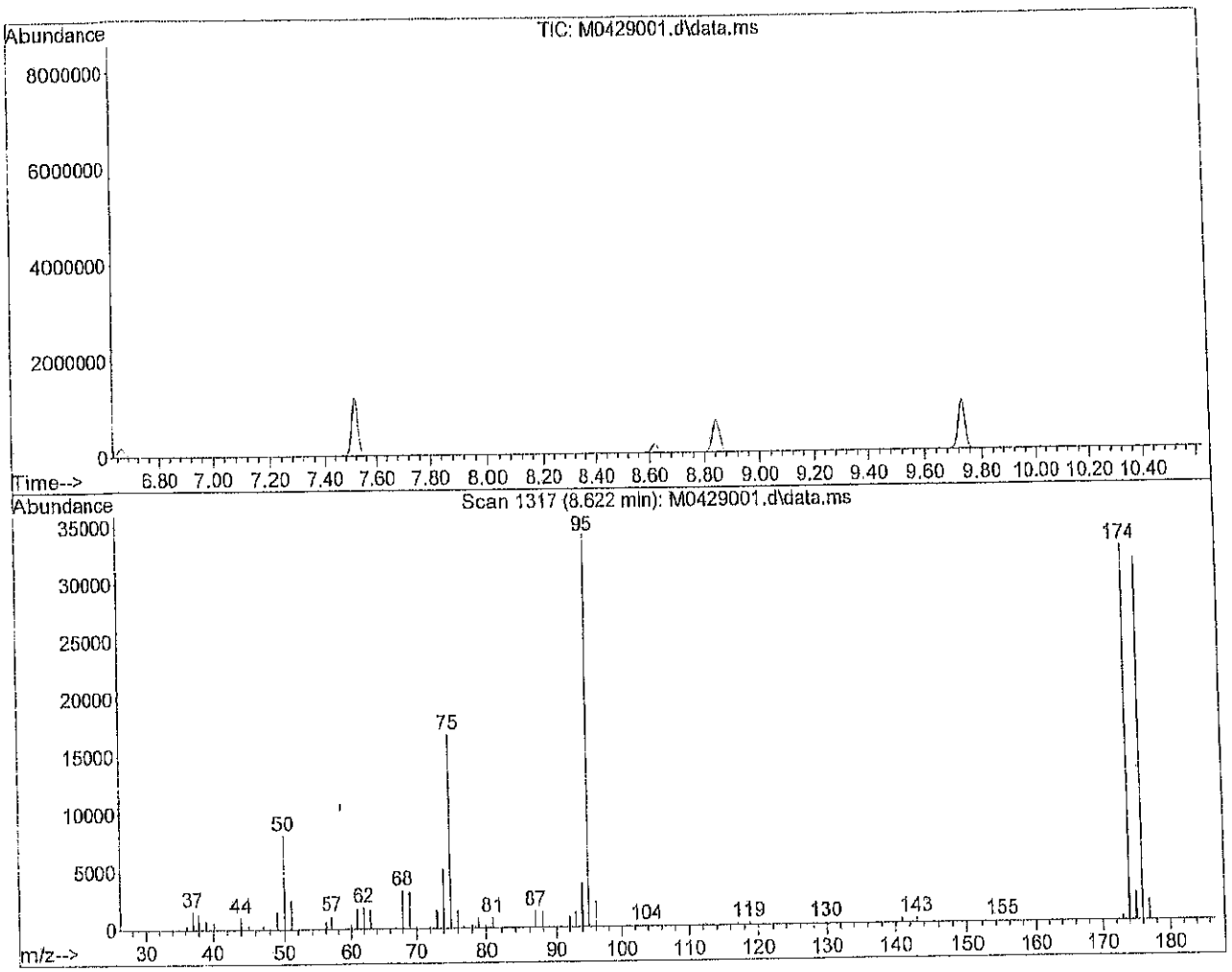
Quant Time: Apr 30 07:43:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429001.d
Acq On : 29 Apr 2014 7:03 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014



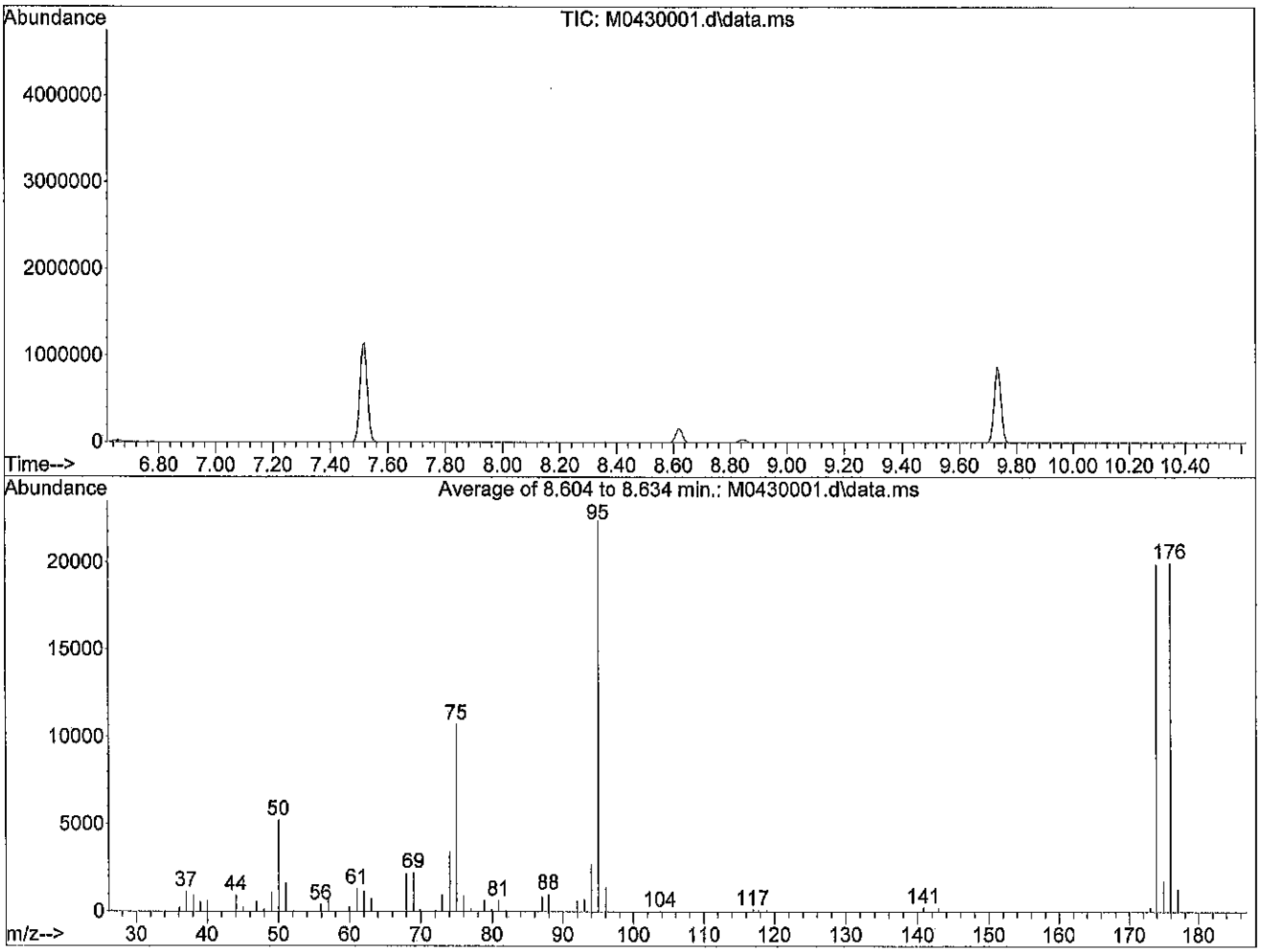
Spectrum Information: Scan 1317

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.9	8167	PASS
75	95	30	80	49.0	16768	PASS
95	95	100	100	100.0	34216	PASS
96	95	5	9	6.7	2283	PASS
173	174	0.00	2	1.2	402	PASS
174	95	50	100	95.2	32568	PASS
175	174	5	9	7.5	2428	PASS
176	174	95	101	96.7	31480	PASS
177	176	5	9	5.6	1770	PASS

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430001.d
Acq On : 30 Apr 2014 6:59 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140429W.M
Title :
Last Update : Tue Apr 29 13:05:18 2014



Spectrum Information: Average of 8.604 to 8.634 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.4	5250	PASS
75	95	30	80	47.8	10719	PASS
95	95	100	100	100.0	22421	PASS
96	95	5	9	6.2	1397	PASS
173	174	0.00	2	1.3	264	PASS
174	95	50	100	88.7	19889	PASS
175	174	5	9	8.8	1751	PASS
176	174	95	101	100.5	19979	PASS
177	176	5	9	6.4	1280	PASS

GC/MS QA-QC Check Report

Tune File : X:\VOLATILE\MORRIS\DATA\M140430\M0430001.d
Tune Time : 30 Apr 2014 6:59 am

Daily Calibration File : X:\VOLATILE\MORRIS\DATA\M140430\M0430002.d

514813 713570 505358

201441

File	Sample	Surrogate Recovery %			Internal Standard Responses		
M0430004.d							
	SB0430W1/T	94	98	95	529942	752827	531963
				195935			
M0430005.d							
	SBD0430W1/	98	101	95	514950	736630	536298
				199743			
M0430006.d							
	MB0430W1	101	99	94	513198	733641	542412
				205134			
M0430015.d							
	04-179-01b	103	99	96	525715	752644	590528
				242257			
M0430016.d							
	04-179-02b	104	108	88	453762	656683	556273
				186164			
M0430017.d							
	04-179-03b	93	98	96	520731	748221	578986
				230571			
M0430018.d							
	04-179-04b	99	98	97	518529	749639	585398
				238939			
M0430019.d							
	04-179-05b	100	100	99	511527	731671	584818
				246926			
M0430020.d							
	04-179-06b	111	100	99	511679	739714	594586
				247650			
M0430021.d							
	04-179-07b	105	100	98	499946	722508	585325
				243856			
M0430022.d							
	04-179-08b	102	100	98	500205	720938	590843
				247291			
M0430023.d							
	04-179-09b	101	102	99	498642	712696	579599
				247600			

(fails) - fails 12hr time check * - fails criteria

Created: Thu May 01 08:08:11 2014 Morris

Sequence Name: C:\msdchem\1\sequence\M140429.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140430\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info	
1)	Sample	1	M0429001 M140328W 50ng bfb mass tune
2)	Sample	2	M0430002 M140429W BLANK
3)	Sample	3	M0430003 M140429W 0.20 PPB ICAL
4)	Sample	4	M0430004 M140429W 1.0 PPB ICAL
5)	Sample	5	M0430005 M140429W 2.0 PPB ICAL
6)	Sample	6	M0430006 M140429W 5.0 PPB ICAL
7)	Sample	7	M0430007 M140429W 10 PPB ICAL
8)	Sample	8	M0430008 M140429W 25 PPB ICAL
9)	Sample	9	M0430009 M140429W BLANK
10)	Sample	10	M0430010 M140429W 50 PPB ICAL
11)	Sample	11	M0430011 M140429W BLANK
12)	Sample	12	M0430012 M140429W BLANK
13)	Sample	13	M0430013 M140429W ICV0429W1
14)	Sample	14	M0430014 M140429W BLANK
15)	Sample	15	M0430015 M140429W 04-180-01a 1:100 SCREEN
16)	Sample	16	M0430016 M140429W 04-180-02a 1:100 SCREEN
17)	Sample	17	M0430017 M140429W 04-180-03a 1:100 SCREEN
18)	Sample	18	M0430018 M140429W 04-180-04a 1:100 SCREEN
19)	Sample	19	M0430019 M140429W 04-180-05a 1:100 SCREEN
20)	Sample	20	M0430020 M140429W 04-199-01a 1:100 SCREEN
21)	Sample	21	M0430021 M140429W 04-199-02a 1:100 SCREEN
22)	Sample	22	M0430022 M140429W 04-199-03a 1:100 SCREEN
23)	Sample	23	M0430023 M140429W 04-199-05a 1:100 SCREEN
24)	Sample	24	M0430024 M140429W 04-204-01a 1:100 SCREEN
25)	Sample	25	M0430025 M140429W 04-204-02a 1:100 SCREEN
26)	Sample	26	M0430026 M140429W 04-204-03a 1:100 SCREEN
27)	Sample	27	M0430027 M140429W 04-204-04a 1:100 SCREEN
28)	Sample	28	M0430028 M140429W 04-204-05a 1:100 SCREEN

Sequence Name: C:\msdchem\1\sequence\M140430.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140430\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0430001 M140429W 50ng bfb mass tune
2)	Sample 2	M0430002 M140429W CCV0430W1
3)	Sample 3	M0430003 M140429W ICV0430W1
4)	Sample 4	M0430004 M140429W SB0430W1/T1
5)	Sample 5	M0430005 M140429W SBD0430W1/T1
6)	Sample 6	M0430006 M140429W MB0430W1
7)	Sample 7	M0430007 M140429W 04-244-02b
8)	Sample 8	M0430008 M140429W 04-244-01b 1:5
9)	Sample 9	M0430009 M140429W 04-244-04b 1:5
10)	Sample 10	M0430010 M140429W 04-244-03b
11)	Sample 11	M0430011 M140429W 04-244-05b 1:20
12)	Sample 12	M0430012 M140429W MB0429T3 1:10
13)	Sample 13	M0430013 M140429W 04-213-02aT 1:10
14)	Sample 14	M0430014 M140429W 04-033-06,08,09,11,12,13,14,1
15)	Sample 15	M0430015 M140429W 04-179-01b
16)	Sample 16	M0430016 M140429W 04-179-02b
17)	Sample 17	M0430017 M140429W 04-179-03b
18)	Sample 18	M0430018 M140429W 04-179-04b
19)	Sample 19	M0430019 M140429W 04-179-05b
20)	Sample 20	M0430020 M140429W 04-179-06b
21)	Sample 21	M0430021 M140429W 04-179-07b
22)	Sample 22	M0430022 M140429W 04-179-08b
23)	Sample 23	M0430023 M140429W 04-179-09b
24)	Sample 24	M0430024 M140429W 04-180-01b
25)	Sample 25	M0430025 M140429W 04-180-02b
26)	Sample 26	M0430026 M140429W 04-180-04b 1:5
27)	Sample 27	M0430027 M140429W 04-180-03b

OnSite Environmental Inc.

WATER EXTRACTION LOG

Instrument Run #: M140430
Date: 4-30-14
Int. Std./Surr. Stock#: V3125-12 / V3-125-13
Matrix Spike Stock#: V3-125-17

# of Sample	Date	Sample I.D.	Volume	pH of Sample	Analyst	Miscellaneous
	4-30-14	MB04430W1	25mL	7	SD	
		SB04430W1/T1		7		
		SBD04430W1/T1		7		
1		04-044-01b	5mL	2		1:5
2		-02b	25mL	2		
3		-03b	25mL	2		
4		-04b	5mL	2		1:5
5		-05b	1.25mL	2		1:20
		MB04429-T3	2.5mL	7		TCLP 1:10
1		04-013-02a	25mL	7		TCLP 1:10
2		04-033-Comp.	0.25mL	7		TCLP 1:100
6		04-179-01b	25mL	2		
7		-02b		2		
8		-03b		2		
9		-04b		2		
10		-05b		2		
11		-06b		2		
12		-07b		2		
13		-08b		2		
14		-09b		2		
15		04-180-01b		2		
16		-02b		2		
17		-03b		2		
18		-04b	5mL	2		1:5

SD 4-30-14

TITLE PROJECT

Continued from page 11a

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
	VOC ADD'S	V3-115-1				1 mL			10-1-13	SD
5										discarded SD 11-19-13
	250 ppm ICAL	V3-115-2	V3-114-4	2000 ppm	125 µL	1 mL	250 ppm	MeOH	10-1-13	SD
			V3-114-16							
			V3-115-1							
10	50 ppm ICAL	V3-115-3	V3-115-2	250 ppm	200 µL	1 mL	50 ppm	MeOH	10-1-13	SD
	10 ppm ICAL	V3-115-4	V3-115-3	50 ppm	200 µL	1 mL	10 ppm	MeOH	10-1-13	SD
	5 ppm ICAL	V3-115-5	V3-115-3	50 ppm	100 µL	1 mL	5 ppm	MeOH	10-1-13	SD
	1 ppm ICAL	V3-115-6	V3-115-3	50 ppm	20 µL	1 mL	1 ppm	MeOH	10-1-13	SD
	50 ppm SS (true)	V3-115-7	V3-114-16	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD spike SD 12-2-13
15	50 ppm ICV	V3-115-8	V3-101-7	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD discard SD 11-19-13
			V3-101-8							
			V3-101-9							
	50 ppm CCV	V3-115-9	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD discard
			V3-114-16							SD 11-22-13
20			V3-115-1							
	2000 ppm SS	V3-115-10				1 mL			10-7-13	SD
										spike SD 11-4-13
25	250 ppm SS	V3-115-11	V3-113-16	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-7-13	SD spike SD 10-31-13
			V3-115-10							
	250 ppm IS	V3-115-12	V3-114-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-8-13	SD discard SD 11-19-13
	IS/LCS 50 ppm SS	V3-115-13	V3-115-10	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	am
	50 ppm IS	V3-115-14	V3-114-14	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	discarded SD 11-19-13
30	.05 ppm ICAL	V3-115-15	V3-115-6	1 ppm	.050 mL	1 mL	.050 ppm	MeOH	10-9-13	discarded SD 11-19-13
	50 ppm CCV	V3-115-16	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-10-13	SD
			V3-114-16							discard SD 10-22-13
			V3-115-1							
	2500 ppm MS	V3-115-17				1 mL			10-10-13	SD
35										

Continued to page 11b

SIGNATURE

DISCLOSED TO AND UNDERSTOOD BY DATE PROPRIETARY INFORMATION

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 213091338
Exp: Jan 25,2014
8 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard ~~VOA Mix~~
2.0 mg/mL in MeOH
Lot: 212051380
Exp: Jun 1,2022
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
CLP-003-R-10X
Purgeable Organic Matrix Spiking Soln.
2.5 mg/mL in MeOH
Lot: 212011385
Exp: Feb 6,2022
5 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

TITLE

PROJECT

Continued from page 120

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
	20000 ppm IS	V3-121-1							2-3-14	SD
5										
	250 ppm IS	V3-121-2	V3-120-8 + V3-121-1	2000 ppm	500 mL	4 mL	250 ppb	MeOH	2-3-14	SD
	50 ppm IS	V3-121-3	V3-115-A	2500 ppm	200 mL	1 mL	50 ppm	MeOH	2-3-14	SD
10	2000 ppm SS	V3-121-4							2-4-14	SD
	250 ppm SS	V3-121-13 + V3-121-4	2000 ppm	500 mL	4 mL	1 mL 250 ppm	250 ppm	MeOH	2-4-14	SD
15	250 ppm SS	V3-121-5	V3-120-13 + V3-121-4	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-4-14	SD
	VOC Liquids	V3-121-6							2-5-14	SD
20										discarded
	VOC ADD IS	V3-121-7							2-5-14	SD
										discarded
25										
	VOC GASES	V3-121-8							2-5-14	SD
										discarded
30	250 ppm ICAL	V3-121-9	V3-121-6 + V3-121-7 + V3-121-8	2000 ppm	125 mL	1 mL	250 ppm	MeOH	2-5-14	SD
	50 ppm ICAL	V3-121-10	V3-121-9	250 ppm	200 mL	1 mL	50 ppm	MeOH	2-5-14	SD
	10 ppm ICAL	V3-121-11	V3-121-10	50 ppm	200 mL	1 mL	10 ppm	MeOH	2-5-14	SD
35	5 ppm ICAL	V3-121-12	V3-121-10	50 ppm	100 mL	1 mL	5 ppm	MeOH	2-5-14	SD

Continued to page 122

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8260JS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 212051380 4 comps.
Exp: Jun 1,2022 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 213121006 8 comps.
Exp: Apr 3,2014 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-502B-10X 1 mL
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424 6 comps.
Exp: May 2,2016 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

V3 - 122
BOOK PAGE

TITLE

PROJECT

Continued from page 12

ANALYTE	LAB ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Initials
~~1 ppm ICAL~~	~~V3-122-1~~	~~V3-121-10~~	~~5 ppm~~	~~20 mL~~	~~1 mL~~	~~1 ppm~~	~~MeOH~~	~~2-5-14~~	~~SD~~
~~5 ppm ICAL~~	~~V3-122-2~~	~~V3-121-1~~	~~1 ppm~~	~~5 mL~~	~~0.5 mL~~	~~5 ppm~~	~~MeOH~~	~~2-5-14~~	~~SD~~
ICV VOC LIQUIDS	V3122-3								
ICV VOC ADDs	V3-122-4								
ICV VOC GASES	V3-122-5								
50 ppm ICV	V3-122-6	V3-122-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-5-14	SD
		V3-122-4	1	1	1	1	1	1	1
		V3-122-5	1	1	1	1	1	1	1
100 ppm ACRYL/DCB	V3-122-7	V3-117-11	100 ppm	500 mL	1 mL	100 ppm	MeOH	2-5-14	SD
		V3-117-12	100 ppm	500 mL					
50 ppm ACRYL/DCB	V3-122-8	~~V3-122-7~~ V3-50 2-5-14	100 ppm	500 mL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ACRYL/DCB	V3-122-9	V3-122-8	50 ppm	200 mL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ACRYL/DCB	V3-122-10	V3-122-8	50 ppm	100 mL	1 mL	5 ppm	MeOH	2-5-14	SD
~~50 ppm CCV~~	~~V3-122-11~~	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-7-14	SD
		V3-121-7	2000 ppm	25 mL	1	1	1	1	1
		V3-121-8	2000 ppm	25 mL	1	1	1	1	1
~~250 ppm IS~~	~~V3-122-12~~	V3-121-1	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-10-14	SD
~~250 ppm SS~~	~~V3-122-13~~	V3-121-4	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-18-14	SD
~~2000 ppm IS~~	~~V3-122-14~~							2-24-14	SD
~~250 ppm IS~~	~~V3-122-15~~	V3-121-1	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-24-14	SD
		V3-122-14	1	1	1	1	1	1	1

Continued to page 123

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 213091216 55 comps.
Exp: Sep 19,2016 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214011413 8 comps.
Exp: Jun 3,2014 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Freeze (<-10° C)
Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-502B-10X 1 mL
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213071142 6 comps.
Exp: Jul 17,2016 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
STORAGE Ambient
Danger

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

PROPRIETARY INFORMATION

TITLE

PROJECT

Continued from page 22

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
	50 ppm SS (Tune)	V3-123-1	V3-121-4	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-26-14	SD
	~~50 ppm CCV~~	V3-123-2	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-27-14	SD
			V3-121-7							
			V3-121-8							
waldo	50 ppm IS	V3-123-3	V3-122-14	2000 ppm	100 µL	4 mL	~~50 ppm~~	MeOH	2-27-14	EEM
waldo	50 ppm SS	V3-123-4	V3-121-4	2000 ppm	100 µL	4 mL	50 ppm	MeOH	2-27-14	EEM
	~~2000 ppm SS~~	V3-123-5							2-28-14	SD
									spent	
									3-2-14	
Albert	250 ppm SS	V3-123-6	V3-121-4							
			V3-123-5	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-28-14	SD
	~~50 ppm I.S.~~	V3-123-7	V3-122-14	~~2000 ppm~~	~~625 µL~~	~~25 mL~~	~~50 ppm~~	~~MeOH~~	3-6-14	~~SD~~
Morris									3-10-14	SD
	~~2000 ppm IS~~	V3-123-8							spent	
									SD 3-11-14	
Albert	250 ppm IS	V3-123-9	V3-122-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
			V3-123-8							
Albert	250 ppm SS	V3-123-10	V3-123-5	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
	50 ppm CCV	V3-123-11	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-121-8							
	~~50 ppm CCV~~	V3-123-12	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-121-8							
	VOC GASES	V3-123-13								
	50 ppm CCV	V3-123-14	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-123-13							

AccuStandard® 126 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028
Exp: Nov 6,2023
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 126 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287
Exp: Nov 19,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 126 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424
Exp: May 2,2016
1 mL
6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

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SIGNATURE DATE

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PROJECT

Continued from page 123	Lab	Stock	Stock	Stock	Final	Final	Solvent	Date	Initials
Analyte	ID	ID	conc.	Vol	Vol	Conc.			
250 ppm IS/SS	V3-124-1	V3-123-8	2000 ppm	250 µL	2 mL	250 ppm	MeOH	3-14-14	EEM
		V3-123-5		250 µL					
50 ppm MS	V3-124-2	V3-115-17	2500 ppm	20 mL	1 mL	50 ppm	MeOH	3-19-14	SD
50 ppm ICV	V3-124-3	V3-127-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-19-14	SD
		V3-123-4							
		V3-123-5							
VOC Liquids	V3-124-4							3-19-14	SD
VOC ADD's	V3-124-5							3-19-14	SD
250 ppm ICAL	V3-124-6	V3-123-13	2000 ppm	125 mL	1 mL	250 ppm	MeOH	3-19-14	SD
		V3-124-4							
		V3-124-5							
50 ppm ICAL	V3-124-7	V3-124-6	250 ppm	200	1 mL	50 ppm	MeOH	3-19-14	SD
10 ppm ICAL	V3-124-8	V3-124-7	50 ppm	200	1 mL	10 ppm	MeOH	3-19-14	SD
5 ppm ICAL	V3-124-9	V3-124-7	50 ppm	100	1 mL	5 ppm	MeOH	3-19-14	SD
1 ppm ICAL	V3-124-10	V3-124-7	50 ppm	20	1 mL	1 ppm	MeOH	3-19-14	SD
~~CCV 50 ppm~~	V3-124-11	V3-123-13	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-19-14	SD
		V3-124-4							
		V3-124-5							
2000 ppm SS	V3-124-12							3-21-14	SD
~~250 ppm IS~~	~~V3-124-13~~	~~V3-123-8~~	2000 ppm	500 mL	4 mL	250 ppm	MeOH	3-21-14	SD
~~250 ppm SS~~	~~V3-124-14~~	~~V3-123-5~~							
		V3-124-12	2000 ppm	500 mL	4 mL	250 ppm	MeOH	3-21-14	SD
~~8000 ppm IS~~	~~V3-124-15~~							3/31/14	SD

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AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214021286 8 comps.
Exp: Jun 28,2014 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Storage: Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6,2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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TITLE **PROJECT**

Continued from page 124 3.31.14

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INIT.
Albert	250 ppm IS	V3-125-1	V3-123-8		500 µL	4 mL	250 ppm	MeOH	3.31.14	SD
			V3-124-15	2000 ppm						
Albert	250 ppm SS	V3-125-2	V3-124-12	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3.31.14	SD
Albert	250 ppm IS	V3-125-3	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4.9.14	SD
	50 ppm CCV	V3-125-4	V3-123-13	2000 ppm	25 µL	1 mL	50 ppm	MeOH	4.9.14	SD
			V3-124-4							
			V3-124-5							
10	50 ppm M.S.	V3-125-5	V3-115-17	2500 ppm	20 µL	1 mL	50 ppm	MeOH	4.9.14	SD
Albert	250 ppm SS	V3-125-6	V3-124-12	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4.16.14	SD
Albert	250 ppm IS	V3-125-7	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4.16.14	SD
	2000 ppm IS	V3-125-8							4.21.14	SD
15										
	2000 ppm SS	V3-125-9							4.21.14	SD
20										
Albert	250 ppm IS	V3-125-10	V3-124-15	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4.21.14	SD
Albert	250 ppm SS	V3-125-11	V3-125-9	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4.21.14	SD
Morris	50 ppm IS	V3-125-12	V3-125-8	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4.21.14	SD
Morris	50 ppm SS	V3-125-13	V3-125-9	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4.21.14	SD
25	50 ppm CCV	V3-125-14	V3-123-13	2000 ppm	25 µL	1 mL	50 ppm	MeOH	4.28.14	SD
			V3-124-4							
			V3-124-5							
Albert	250 ppm IS	V3-125-15	V3-125-8	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4.25.14	SD
Albert	250 ppm SS	V3-125-16	V3-125-9	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4.25.14	SD
30	50 ppm M.S.	V3-125-17	V3-115-17	2500 ppm	20 µL	1 mL	50 ppm	MeOH	4.25.14	SD
	2000 ppm SS	V3-125-18							4.28.14	SD
Albert 35	250 ppm SS	V3-125-19	V3-125-9 + V3-125-16	2000 ppm	250 mL	2 mL	250 ppm	MeOH	4.28.14	SD

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287
Exp: Nov 19, 2022
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
Storage: Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028
Exp: Nov 6, 2023
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028
Exp: Nov 6, 2023
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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SIGNATURE DATE

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PROJECT

Continued from page 125

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC.	SOLVENT	DATE	INITIALS
50 ppm CCV	V3126-1	V3-125-13	2000 ppm	25 mL	1 mL	50 ppm	MeOH	4-28-14	SD
		V3124-4	"	"	"	"	"	"	"
		V3124-5	"	"	"	"	"	"	"
250 ppm LS	V3126-2	V3-125-8	2000 ppm	250 mL	2 mL	250 ppm	MeOH	5-1-14	SD
250 ppm SS	V3126-3	V3-125-18	2000 ppm	250 mL	2 mL	250 ppm	MeOH	5-1-14	SD

Continued to page

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OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 1, 2014

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0180-121-09
Laboratory Reference No. 1404-180

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on April 22, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-180
Project: 0180-121-09

Case Narrative

Samples were collected on April 21, 2014 and received by the laboratory on April 22, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-180
Project: 0180-121-09

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-ES-06-140421	04-180-01	Water	4-21-14	4-22-14	
MW-ES-05-140421	04-180-02	Water	4-21-14	4-22-14	
MW-ES-02-140421	04-180-03	Water	4-21-14	4-22-14	
MW-ES-09-140421	04-180-04	Water	4-21-14	4-22-14	
DUP-2-140421	04-180-05	Water	4-21-14	4-22-14	
RIN-2-140421	04-180-06	Water	4-21-14	4-22-14	
TB-2-140421	04-180-07	Water	4-21-14	4-22-14	

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-180
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-ES-06-140421**					
Laboratory ID:	04-180-01					
Vinyl Chloride	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Trichloroethene	1.1	0.20	EPA 8260C	4-30-14	4-30-14	
Tetrachloroethene	13	0.20	EPA 8260C	4-30-14	4-30-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*62-122*				
Toluene-d8	*101*	*70-120*				
4-Bromofluorobenzene	*97*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-180
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-ES-05-140421**					
Laboratory ID:	04-180-02					
Vinyl Chloride	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Trichloroethene	25	0.20	EPA 8260C	4-30-14	4-30-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*102*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*98*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-180
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-ES-02-140421**					
Laboratory ID:	04-180-03					
Vinyl Chloride	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Trichloroethene	39	0.20	EPA 8260C	4-30-14	4-30-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*62-122*				
Toluene-d8	*101*	*70-120*				
4-Bromofluorobenzene	*99*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-180
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-ES-09-140421**					
Laboratory ID:	04-180-04					
Vinyl Chloride	ND	1.0	EPA 8260C	4-30-14	4-30-14	
1,1-Dichloroethene	ND	1.0	EPA 8260C	4-30-14	4-30-14	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260C	4-30-14	4-30-14	
(cis) 1,2-Dichloroethene	ND	1.0	EPA 8260C	4-30-14	4-30-14	
1,2-Dichloroethane	ND	1.0	EPA 8260C	4-30-14	4-30-14	
Trichloroethene	110	1.0	EPA 8260C	4-30-14	4-30-14	
Tetrachloroethene	ND	1.0	EPA 8260C	4-30-14	4-30-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-180
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DUP-2-140421**					
Laboratory ID:	04-180-05					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	25	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*90*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-180
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RIN-2-140421**					
Laboratory ID:	04-180-06					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*95*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-180
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TB-2-140421**					
Laboratory ID:	04-180-07					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*95*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-180
Project: 0180-121-09

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0430W1					
Vinyl Chloride	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Trichloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Tetrachloroethene	ND	0.20	EPA 8260C	4-30-14	4-30-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				
Laboratory ID:	MB0501W1					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*92*	*71-120*				

Date of Report: May 1, 2014
Samples Submitted: April 22, 2014
Laboratory Reference: 1404-180
Project: 0180-121-09

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0430W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.9**	**11.0**	10.0	10.0	109	110	63-142	1	17	
Benzene	**9.89**	**10.3**	10.0	10.0	99	103	78-125	4	15	
Trichloroethene	**9.60**	**9.67**	10.0	10.0	96	97	80-125	1	15	
Toluene	**9.88**	**10.1**	10.0	10.0	99	101	80-125	2	15	
Chlorobenzene	**10.7**	**10.8**	10.0	10.0	107	108	80-140	1	15	
Surrogate:										
Dibromofluoromethane					*94*	*98*	*62-122*			
Toluene-d8					*98*	*101*	*70-120*			
4-Bromofluorobenzene					*95*	*95*	*71-120*			
Laboratory ID:	SB0501W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.4**	**10.4**	10.0	10.0	104	104	63-142	0	17	
Benzene	**9.70**	**9.85**	10.0	10.0	97	99	78-125	2	15	
Trichloroethene	**9.61**	**9.40**	10.0	10.0	96	94	80-125	2	15	
Toluene	**9.71**	**9.86**	10.0	10.0	97	99	80-125	2	15	
Chlorobenzene	**10.7**	**10.5**	10.0	10.0	107	105	80-140	2	15	
Surrogate:										
Dibromofluoromethane					*88*	*93*	*62-122*			
Toluene-d8					*98*	*99*	*70-120*			
4-Bromofluorobenzene					*93*	*94*	*71-120*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

14

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEI
Project Number: 0180-121-09
Project Name: Palermo
Project Manager: Nick Rohrbach
Sampled by: PDR/HLM

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 04-180

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C Project list	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
1	MW-ES-06-140421	4/21/14	0955	GW	3					X												
2	MW-ES-05-140421		1040							X												
3	MW-ES-02-140421		1215							X												
4	MW-ES-09-140421		1430							X												
5	DUP-2-140421		1000							X												
6	RIN-2-140421		1435							X												
7	TB-2-140421				2					X												

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEI	4/22/14	835	
Received		Spdx	4/22	835	
Relinquished		"	"	1215	
Received		GSE	4/22/14	1215	
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☑

Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 080-121-09

OnSite Project Number: 04-180

Initiated by: MMV

Date Initiated: 4/22/14

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 2		
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A			
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	Yes	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	Yes	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

Complete Data Package

- Volatiles by EPA 8260C

Volatiles by EPA 8260C Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430024.d
Acq On : 30 Apr 2014 5:08 pm
Operator :
Sample : 04-180-01b
Misc :
ALS Vial : 24 Sample Multiplier: 1

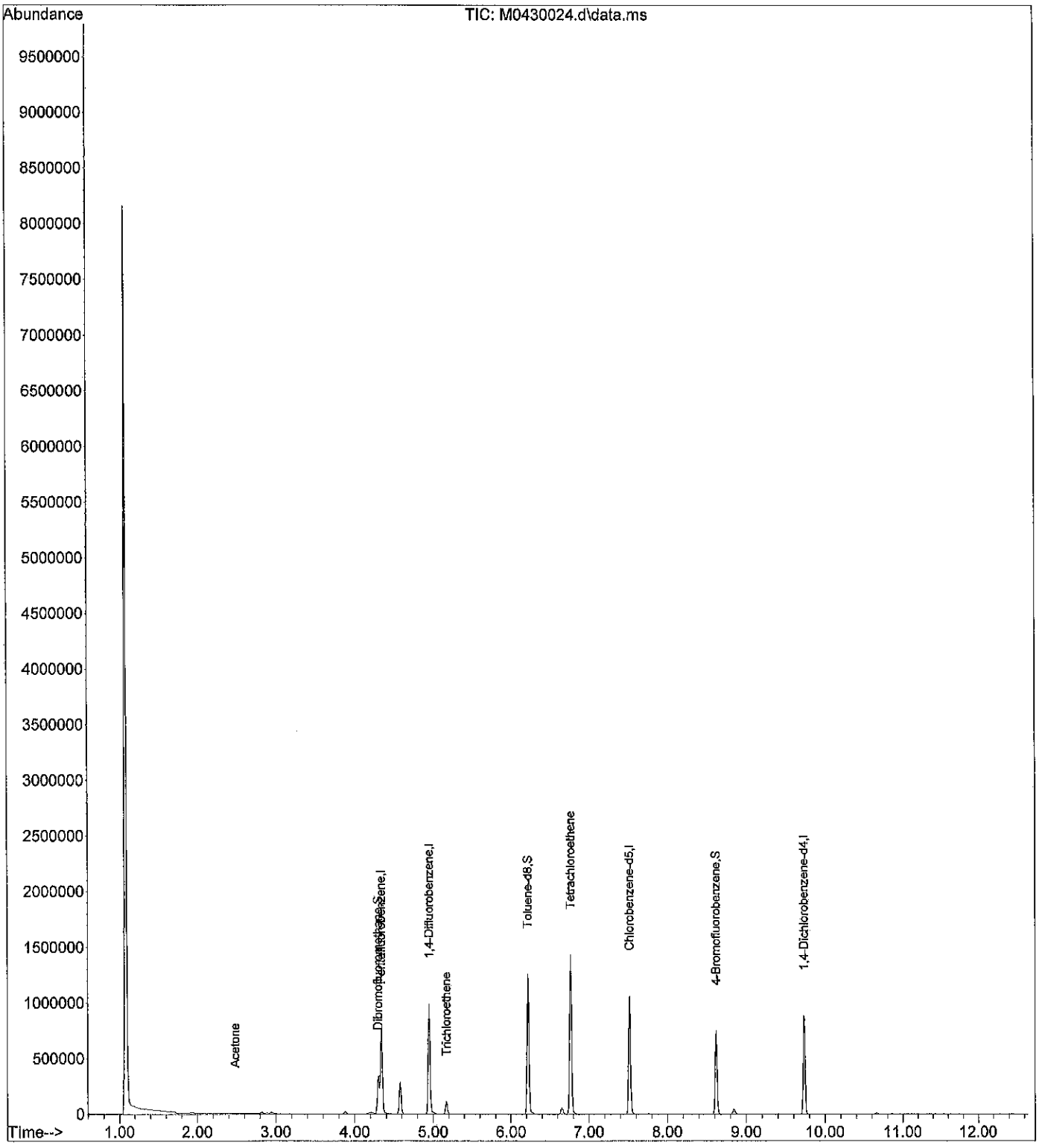
Quant Time: May 01 07:22:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

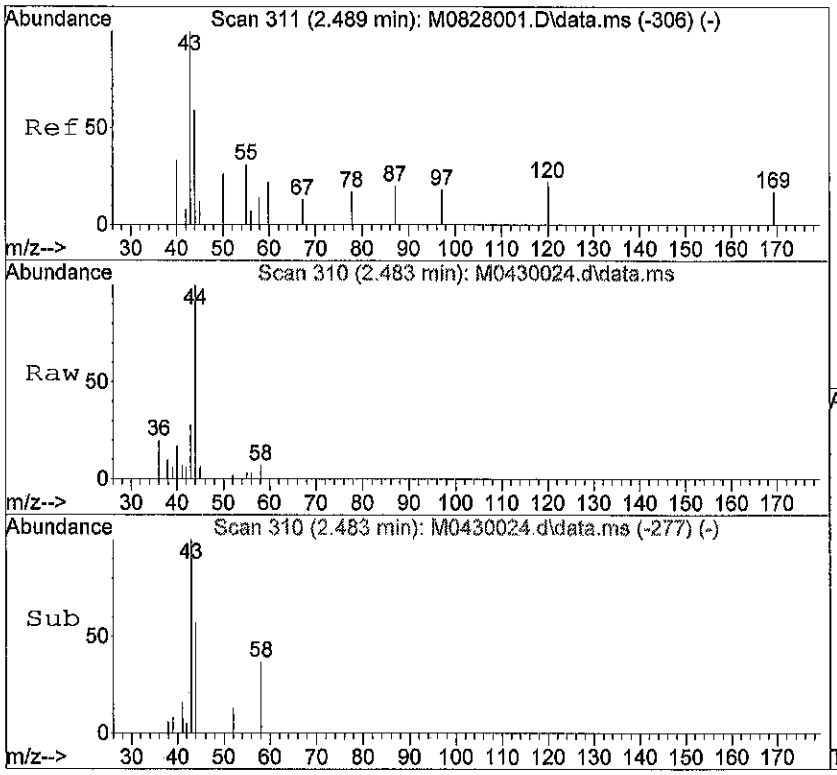
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	503247	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	721179	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	596230	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	251424	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	184613	10.14	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 101.40%			
36) Toluene-d8	6.220	98	794918	10.07	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.70%			
54) 4-Bromofluorobenzene	8.622	95	249190	9.73	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.30%			
Target Compounds						Qvalue
9) Acetone	2.483	43	2966	0.91	ppb	97
29) Trichloroethene	5.171	130	35918	1.13	ppb	98
41) Tetrachloroethene	6.768	166	449350	12.73	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430024.d
Acq On : 30 Apr 2014 5:08 pm
Operator :
Sample : 04-180-01b
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 01 07:22:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

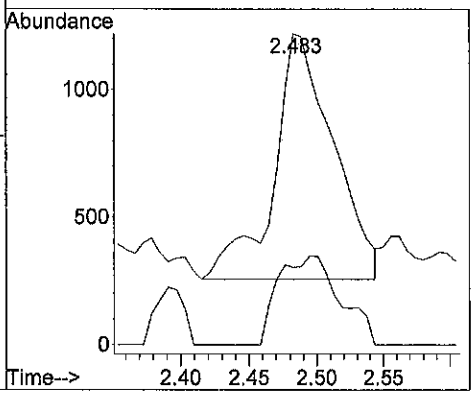


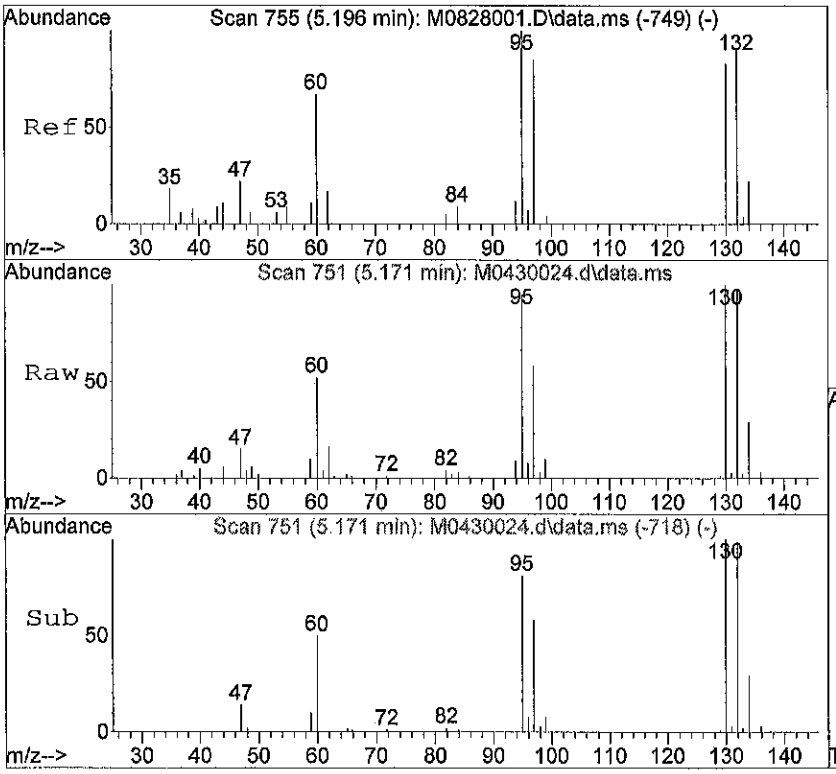


#9
Acetone
Concen: 0.91 ppb
RT: 2.483 min Scan# 310
Delta R.T. -0.000 min
Lab File: M0430024.d
Acq: 30 Apr 2014 5:08 pm

Tgt Ion: 43 Resp: 2966

Ion	Ratio	Lower	Upper
43	100		
58	37.6	28.6	43.0

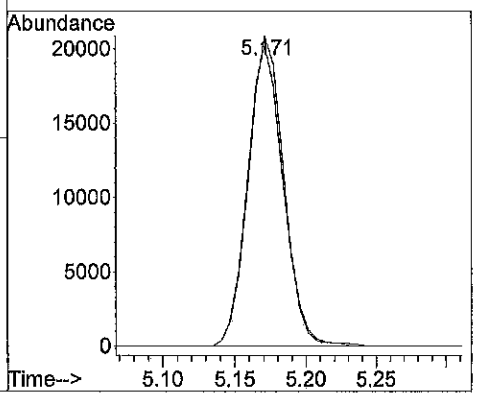


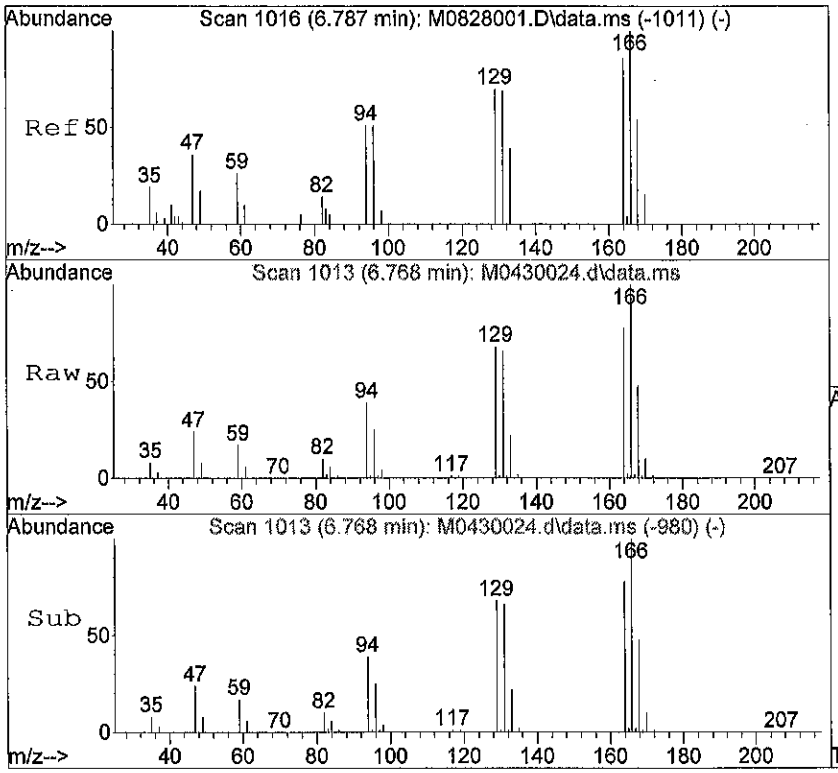


#29
Trichloroethene
Concen: 1.13 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0430024.d
Acq: 30 Apr 2014 5:08 pm

Tgt Ion:130 Resp: 35918

Ion	Ratio	Lower	Upper
130	100		
132	98.3	77.0	115.4

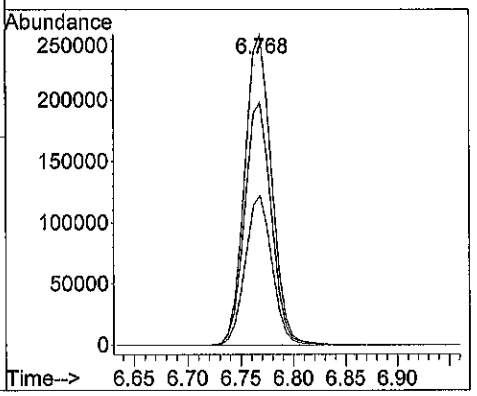




#41
Tetrachloroethene
Concen: 12.73 ppb
RT: 6.768 min Scan# 1013
Delta R.T. -0.001 min
Lab File: M0430024.d
Acq: 30 Apr 2014 5:08 pm

Tgt Ion:166 Resp: 449350

Ion	Ratio	Lower	Upper
166	100		
168	48.0	37.8	56.8
164	77.7	62.6	94.0



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430025.d
Acq On : 30 Apr 2014 5:34 pm
Operator :
Sample : 04-180-02b
Misc :
ALS Vial : 25 Sample Multiplier: 1

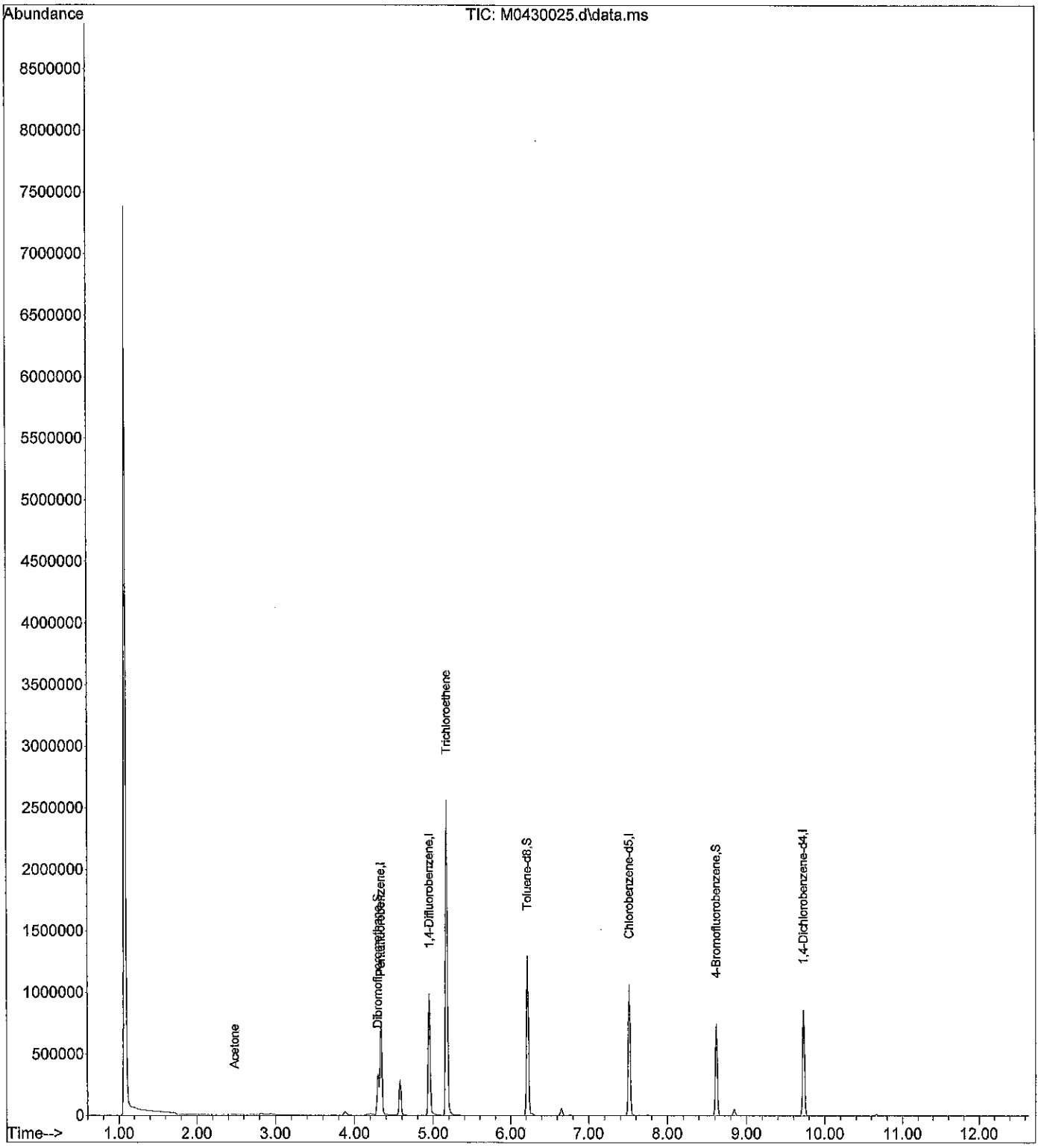
Quant Time: May 01 07:22:59 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

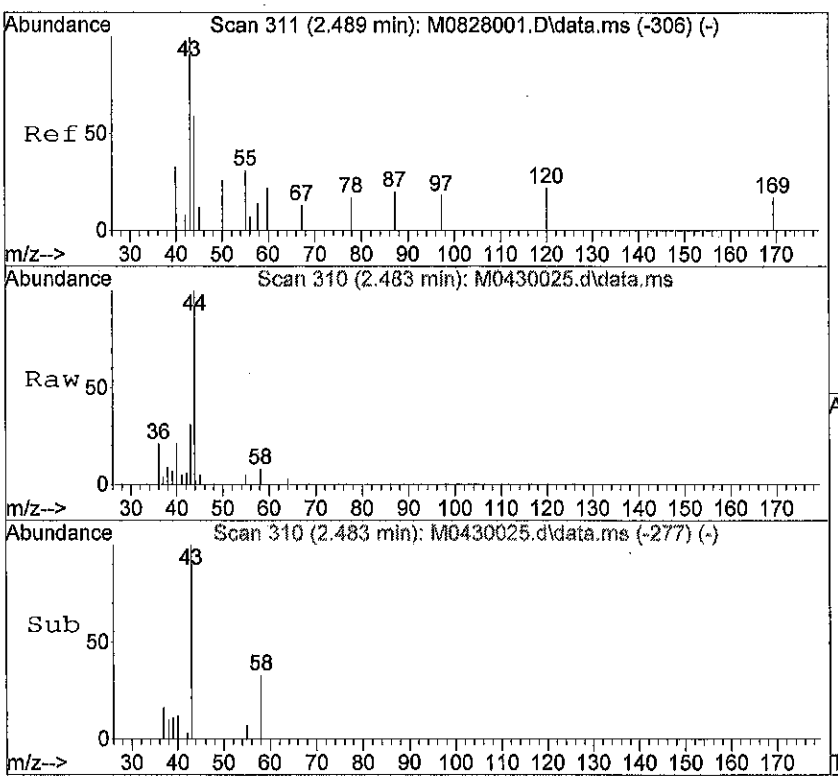
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	499092	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	734792	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	594227	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	246275	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	183445	10.16	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 101.60%			
36) Toluene-d8	6.220	98	799679	9.94	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.40%			
54) 4-Bromofluorobenzene	8.622	95	251367	9.85	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.50%			
Target Compounds						Qvalue
9) Acetone	2.483	43	2361	0.73	ppb	91
29) Trichloroethene	5.171	130	817164	25.16	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430025.d
Acq On : 30 Apr 2014 5:34 pm
Operator :
Sample : 04-180-02b
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: May 01 07:22:59 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

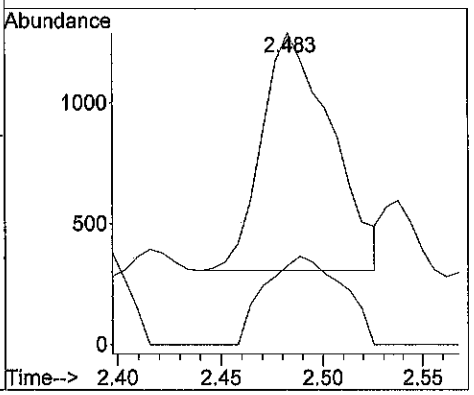


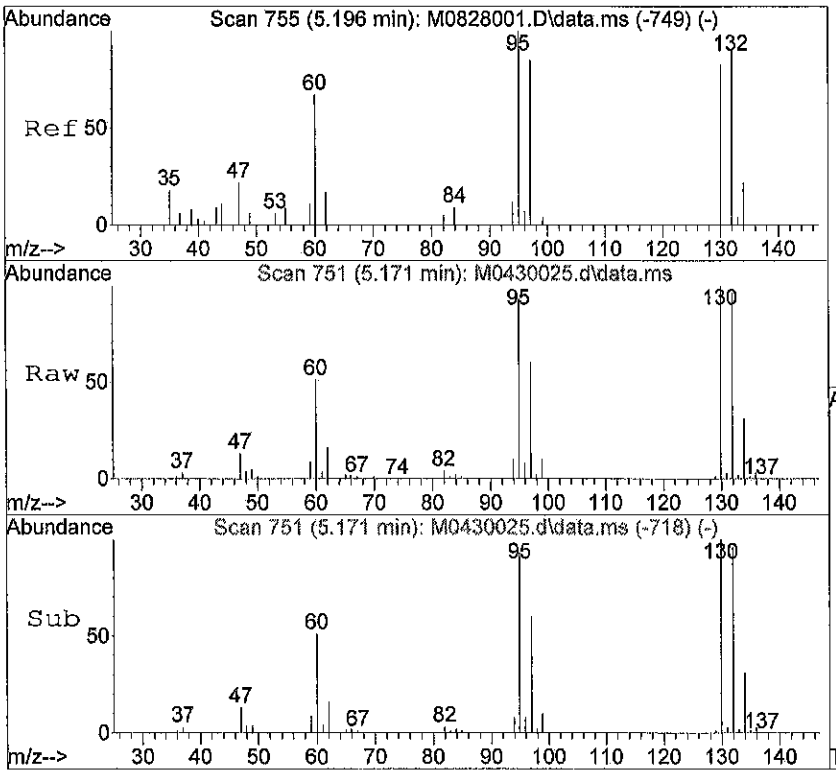


#9
Acetone
Concen: 0.73 ppb
RT: 2.483 min Scan# 310
Delta R.T. -0.000 min
Lab File: M0430025.d
Acq: 30 Apr 2014 5:34 pm

Tgt Ion: 43 Resp: 2361

Ion	Ratio	Lower	Upper
43	100		
58	41.3	28.6	43.0

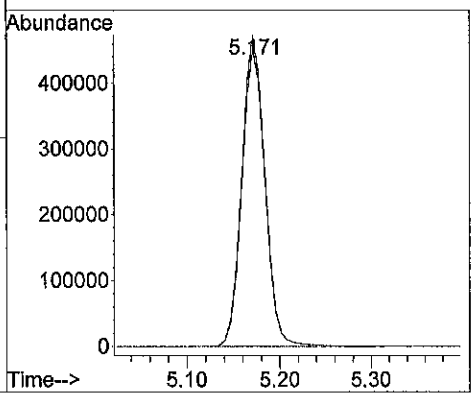




#29
Trichloroethene
Concen: 25.16 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0430025.d
Acq: 30 Apr 2014 5:34 pm

Tgt Ion:130 Resp: 817164

Ion	Ratio	Lower	Upper
130	100		
132	96.2	77.0	115.4



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430027.d
Acq On : 30 Apr 2014 6:24 pm
Operator :
Sample : 04-180-03b
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: May 01 07:24:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

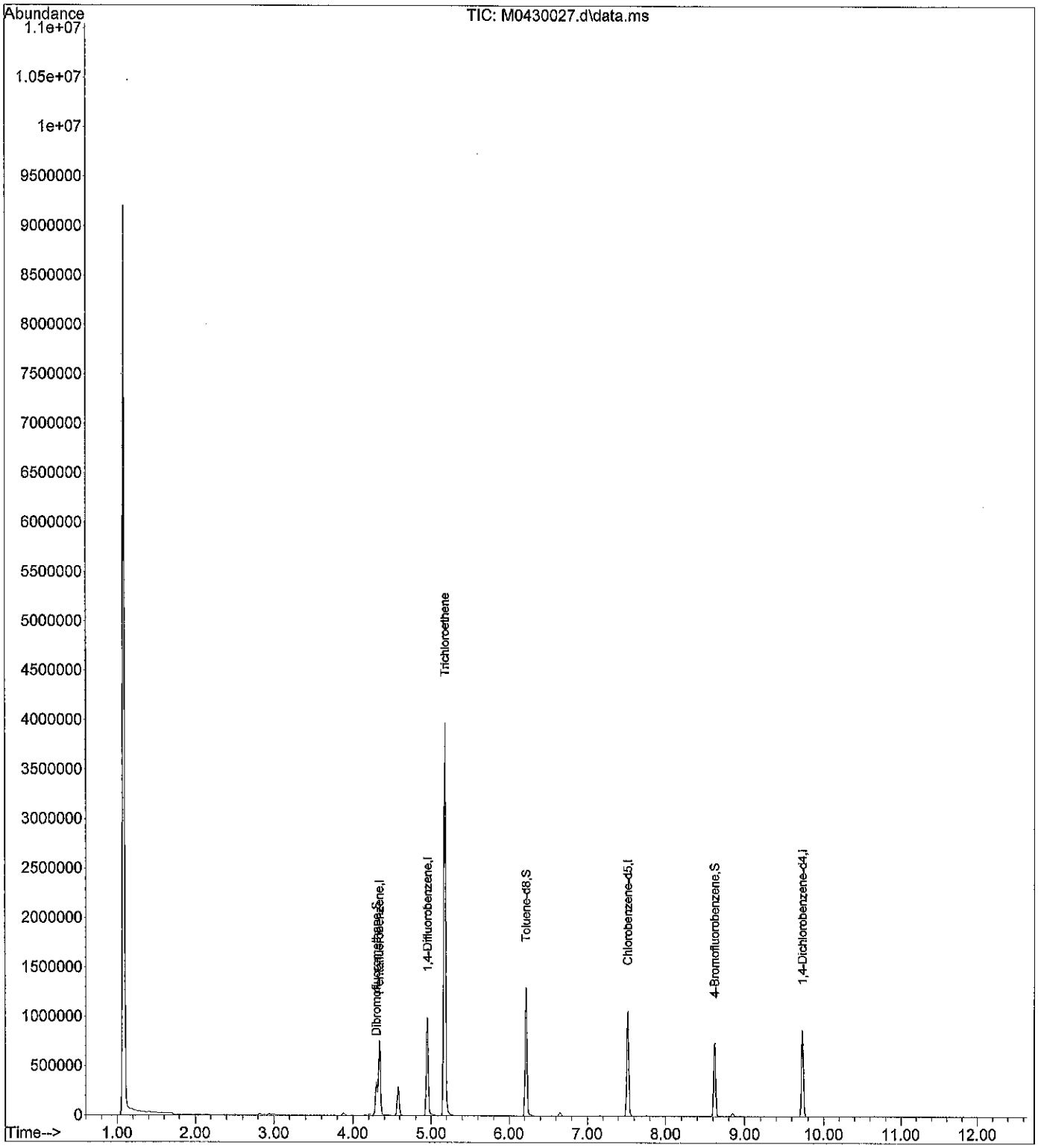
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	501223	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	729801	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	589232	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	247604	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	186315	10.27	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.70%			
36) Toluene-d8	6.220	98	803544	10.06	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.60%			
54) 4-Bromofluorobenzene	8.622	95	250992	9.92	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.20%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	1265113	39.22	ppb	100

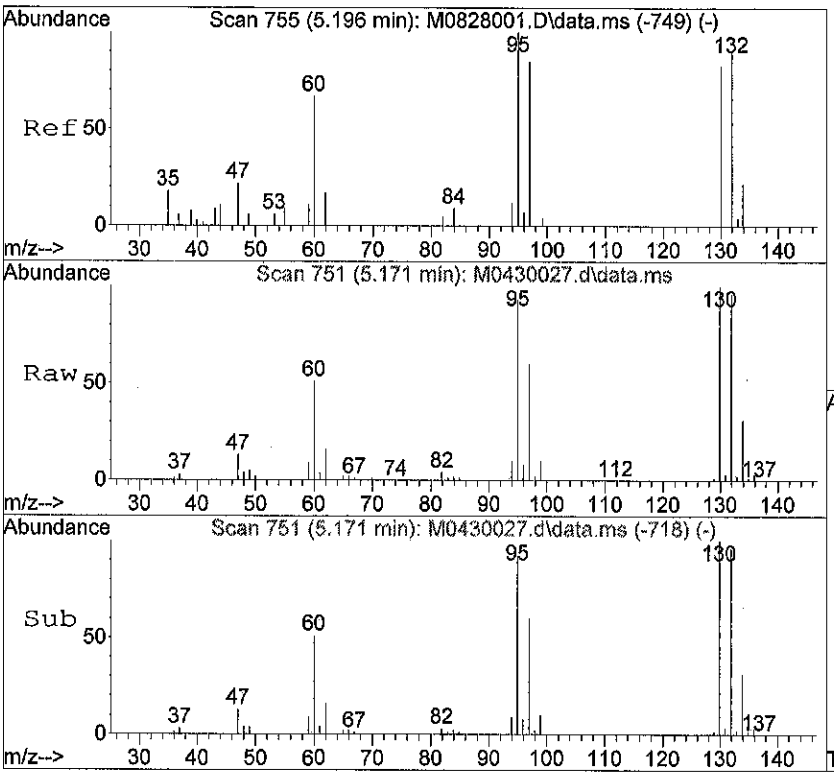
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430027.d
Acq On : 30 Apr 2014 6:24 pm
Operator :
Sample : 04-180-03b
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: May 01 07:24:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

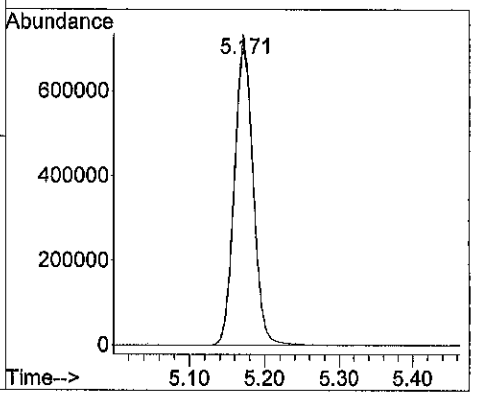




#29
Trichloroethene
Concen: 39.22 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0430027.d
Acq: 30 Apr 2014 6:24 pm

Tgt Ion:130 Resp: 1265113

Ion	Ratio	Lower	Upper
130	100		
132	96.4	77.0	115.4



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430026.d
Acq On : 30 Apr 2014 6:00 pm
Operator :
Sample : 04-180-04b 1:5
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 01 07:23:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

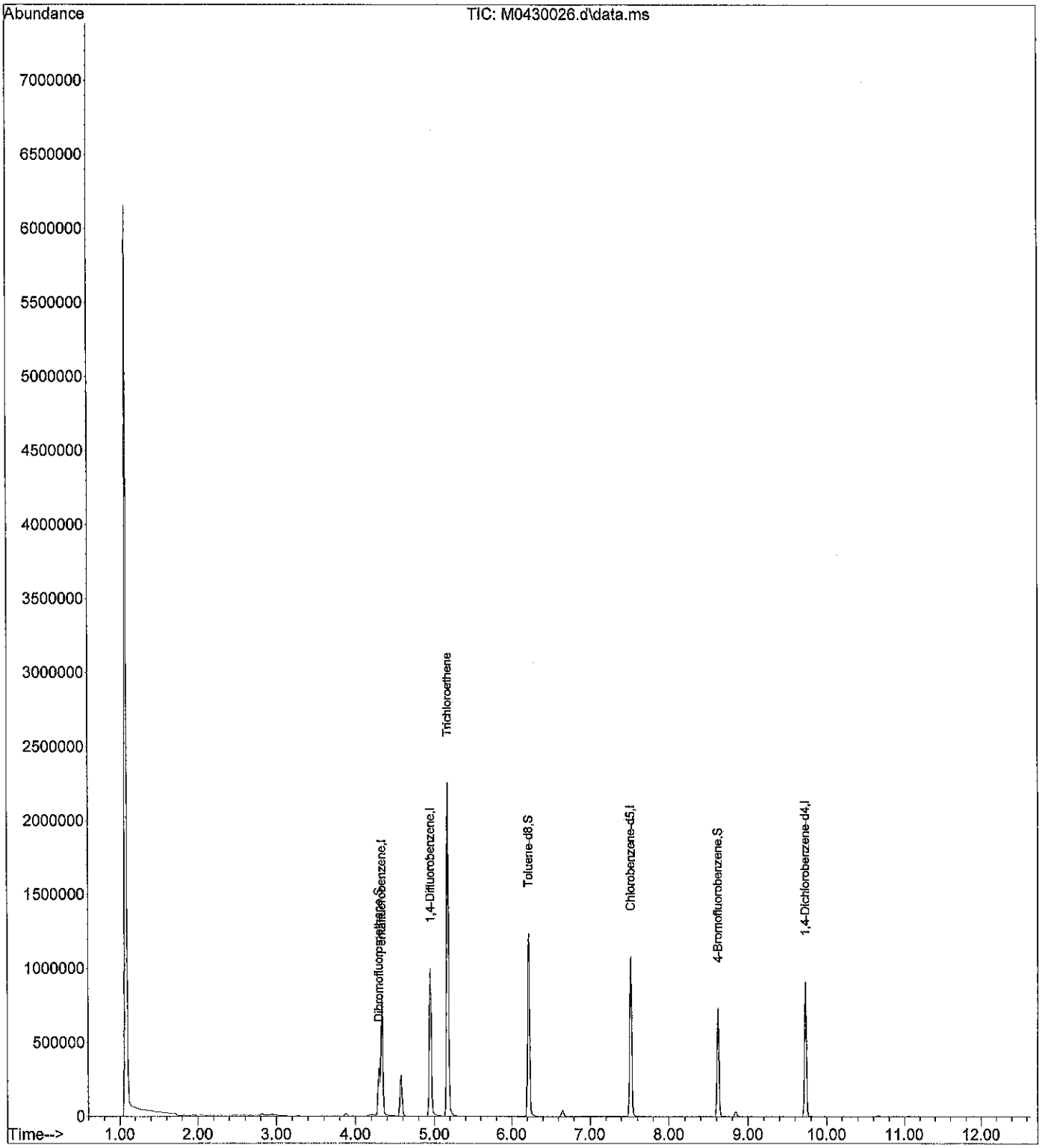
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	511921	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	742602	10.00	ppb	0.00
38) Chlorobenzene-d5	7.519	117	611565	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.732	152	255449	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	176462	9.53	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 95.30%			
36) Toluene-d8	6.220	98	780020	9.60	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 96.00%			
54) 4-Bromofluorobenzene	8.622	95	247094	9.40	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.00%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	728298	22.19	ppb	99

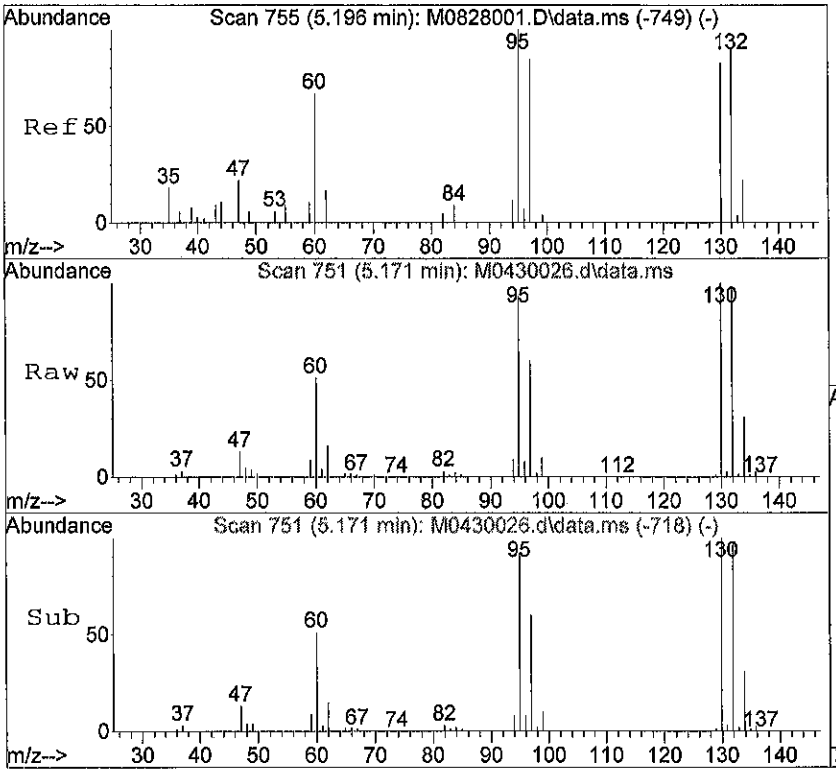
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430026.d
Acq On : 30 Apr 2014 6:00 pm
Operator :
Sample : 04-180-04b 1:5
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 01 07:23:31 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

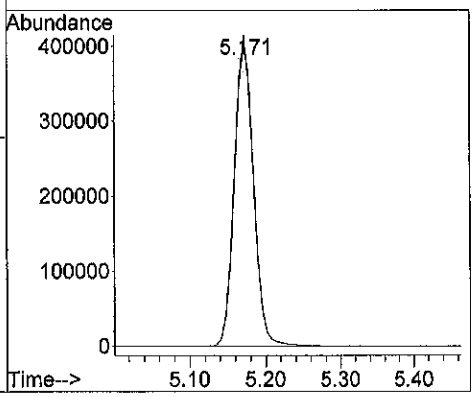




#29
Trichloroethene
Concen: 22.19 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0430026.d
Acq: 30 Apr 2014 6:00 pm

Tgt Ion:130 Resp: 728298

Ion	Ratio	Lower	Upper
130	100		
132	97.0	77.0	115.4



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501006.d
Acq On : 1 May 2014 9:44 am
Operator :
Sample : 04-180-05b
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 01 10:31:38 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

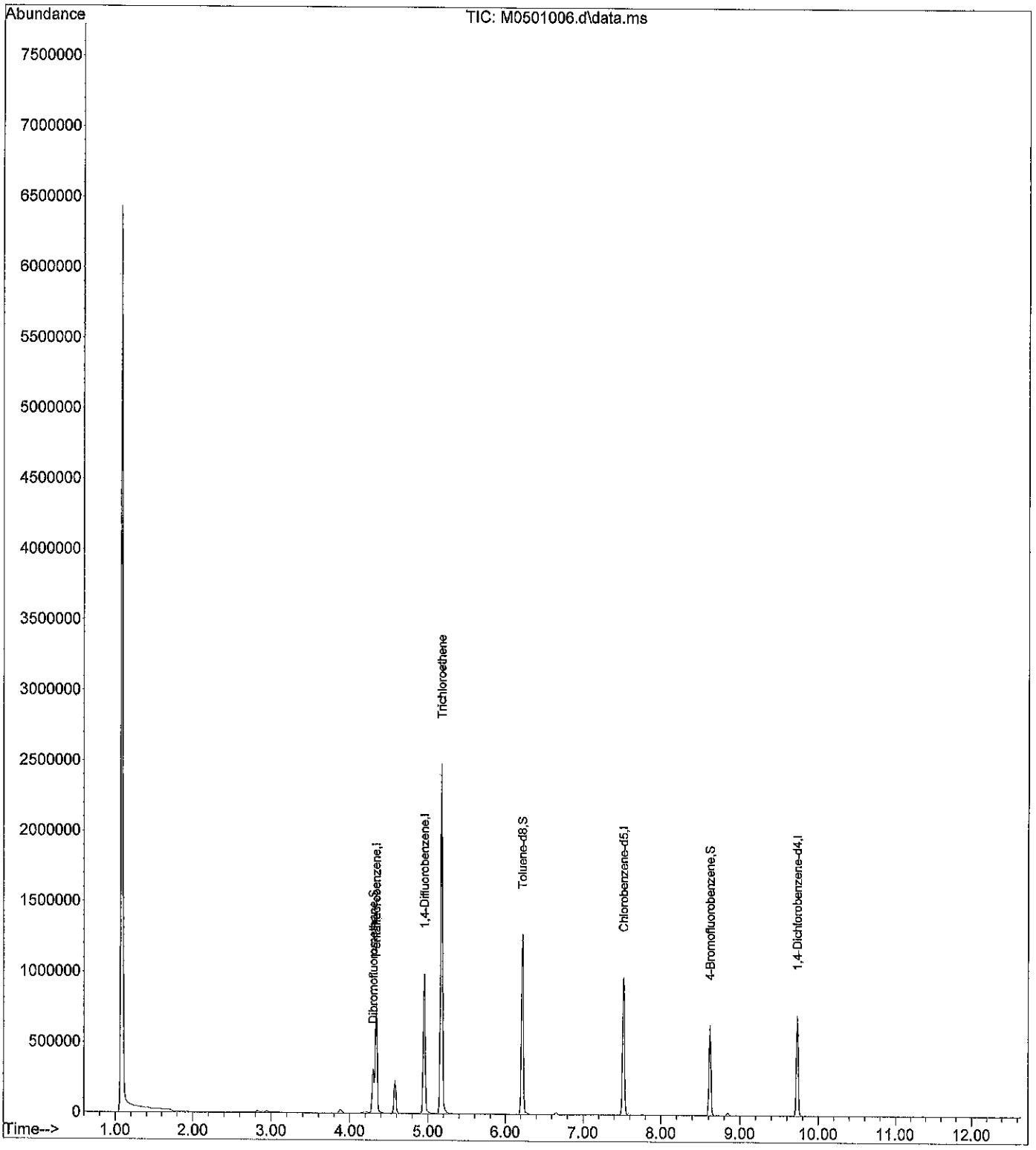
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	517692	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	730391	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	546533	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	200947	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	168188	8.98	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 89.80%			
36) Toluene-d8	6.220	98	797017	9.97	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.70%			
54) 4-Bromofluorobenzene	8.622	95	212184	9.04	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 90.40%			
Target Compounds						Qvalue
29) Trichloroethene	5.171	130	797238	24.69	ppb	100

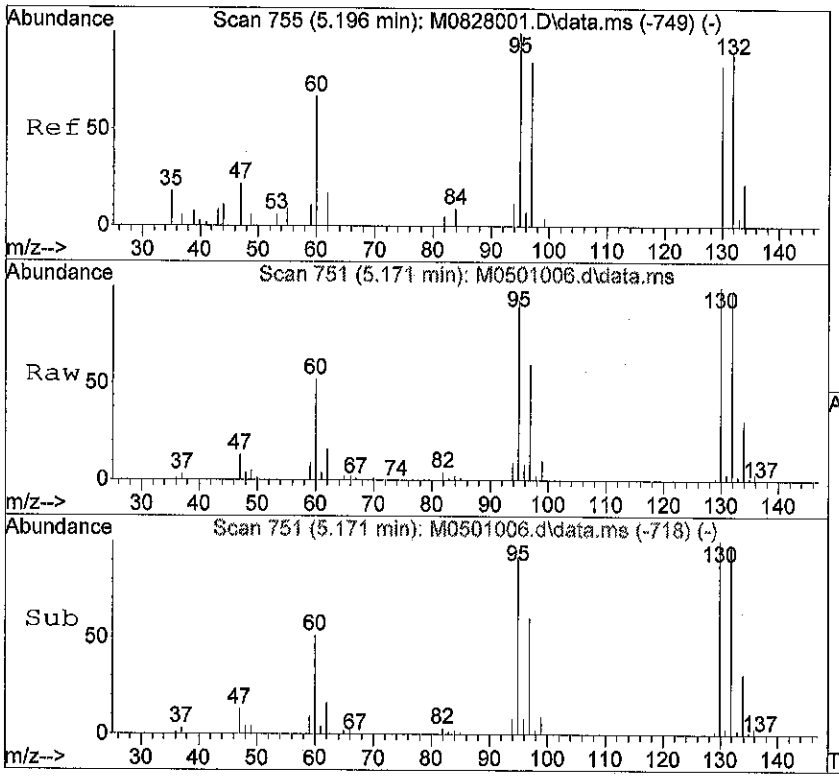
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501006.d
Acq On : 1 May 2014 9:44 am
Operator :
Sample : 04-180-05b
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 01 10:31:38 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

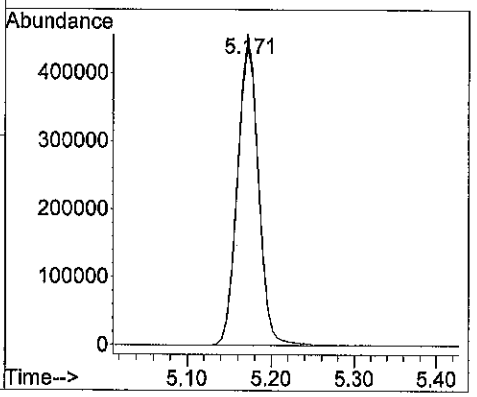




#29
Trichloroethene
Concen: 24.69 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0501006.d
Acq: 1 May 2014 9:44 am

Tgt Ion:130 Resp: 797238

Ion	Ratio	Lower	Upper
130	100		
132	96.1	77.0	115.4



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501007.d
Acq On : 1 May 2014 10:07 am
Operator :
Sample : 04-180-06b
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 01 10:32:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

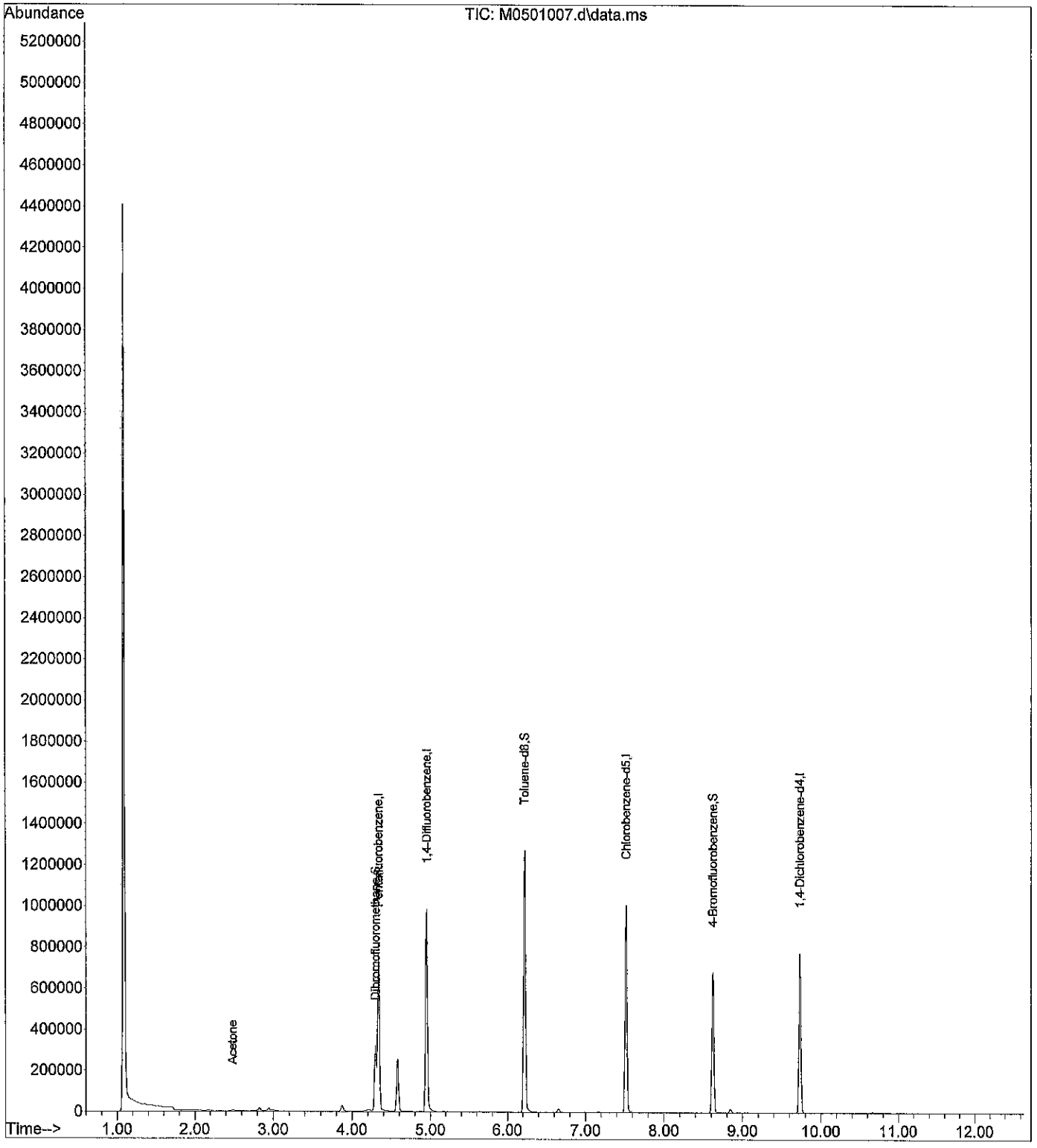
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	505463	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	728859	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	559084	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	219069	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	172977	9.46	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 94.60%			
36) Toluene-d8	6.220	98	791038	9.92	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.20%			
54) 4-Bromofluorobenzene	8.622	95	227373	9.47	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.70%			
Target Compounds						Qvalue
9) Acetone	2.483	43	2405	0.74	ppb	91

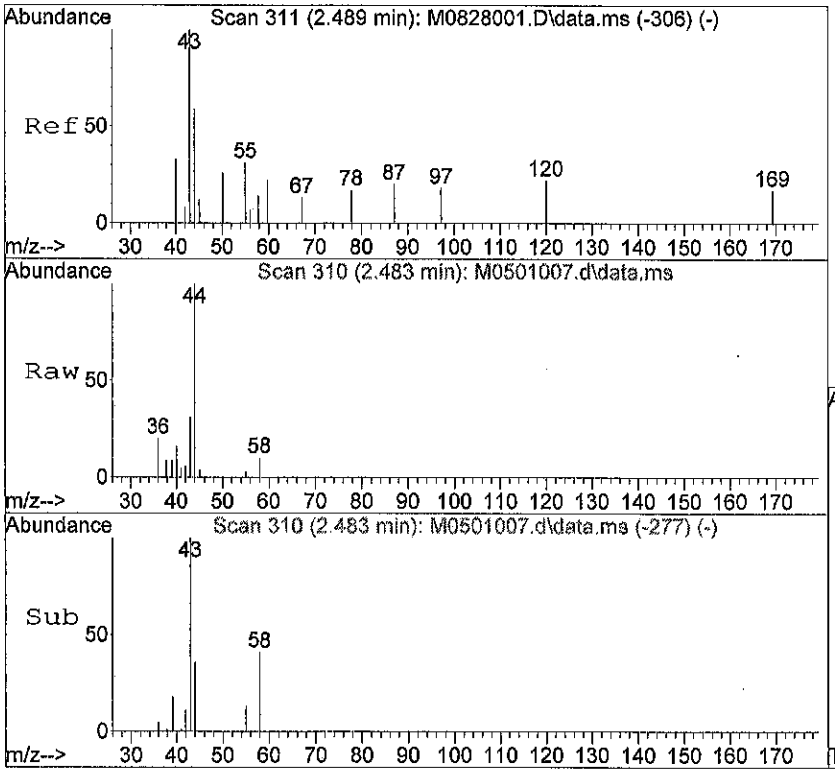
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501007.d
Acq On : 1 May 2014 10:07 am
Operator :
Sample : 04-180-06b
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 01 10:32:16 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

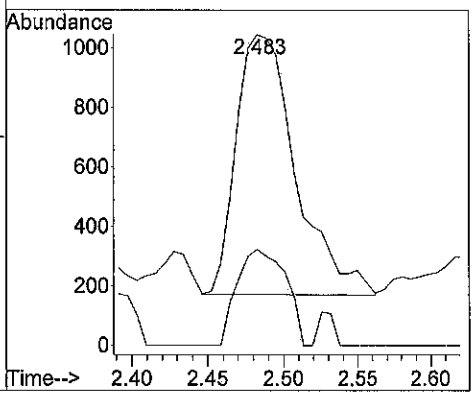




#9
Acetone
Concen: 0.74 ppb
RT: 2.483 min Scan# 310
Delta R.T. -0.000 min
Lab File: M0501007.d
Acq: 1 May 2014 10:07 am

Tgt Ion: 43 Resp: 2405

Ion	Ratio	Lower	Upper
43	100		
58	30.3	28.6	43.0



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501008.d
Acq On : 1 May 2014 10:31 am
Operator :
Sample : 04-180-07b
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 01 11:04:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

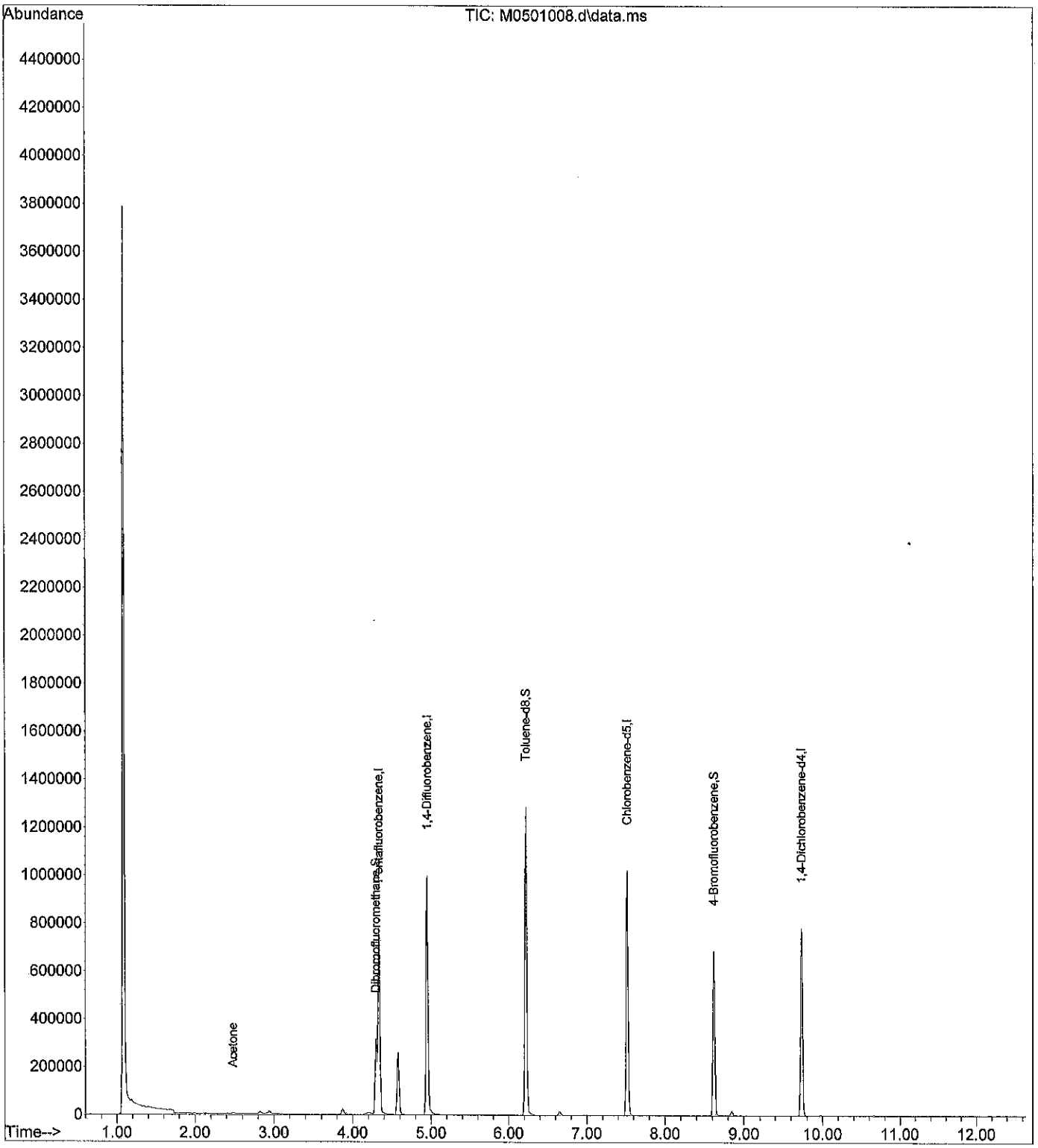
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	512459	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	736049	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	562357	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	225925	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	175522	9.47	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 94.70%			
36) Toluene-d8	6.220	98	801303	9.95	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.50%			
54) 4-Bromofluorobenzene	8.622	95	230686	9.55	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 95.50%			
Target Compounds						Qvalue
9) Acetone	2.483	43	2569	0.78	ppb	# 86

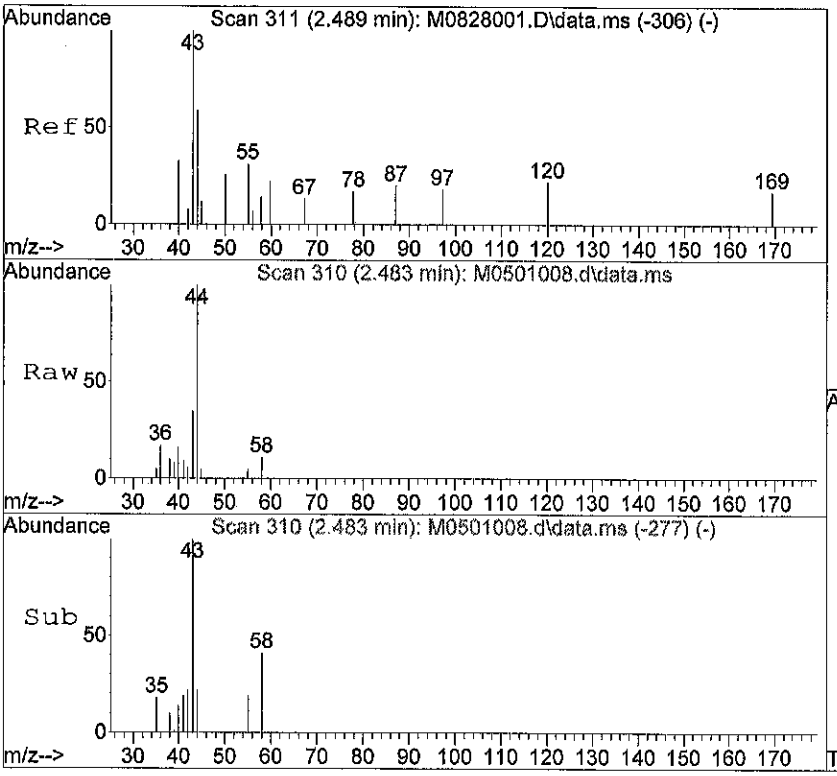
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501008.d
Acq On : 1 May 2014 10:31 am
Operator :
Sample : 04-180-07b
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 01 11:04:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

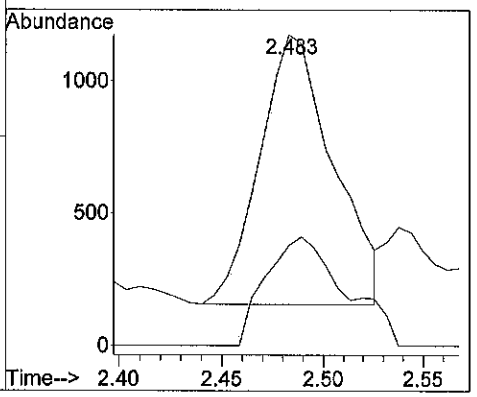




#9
Acetone
Concen: 0.78 ppb
RT: 2.483 min Scan# 310
Delta R.T. -0.000 min
Lab File: M0501008.d
Acq: 1 May 2014 10:31 am

Tgt Ion: 43 Resp: 2569

Ion	Ratio	Lower	Upper
43	100		
58	43.8	28.6	43.0#



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430006.d
Acq On : 30 Apr 2014 9:17 am
Operator :
Sample : MB0430W1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 30 10:08:40 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

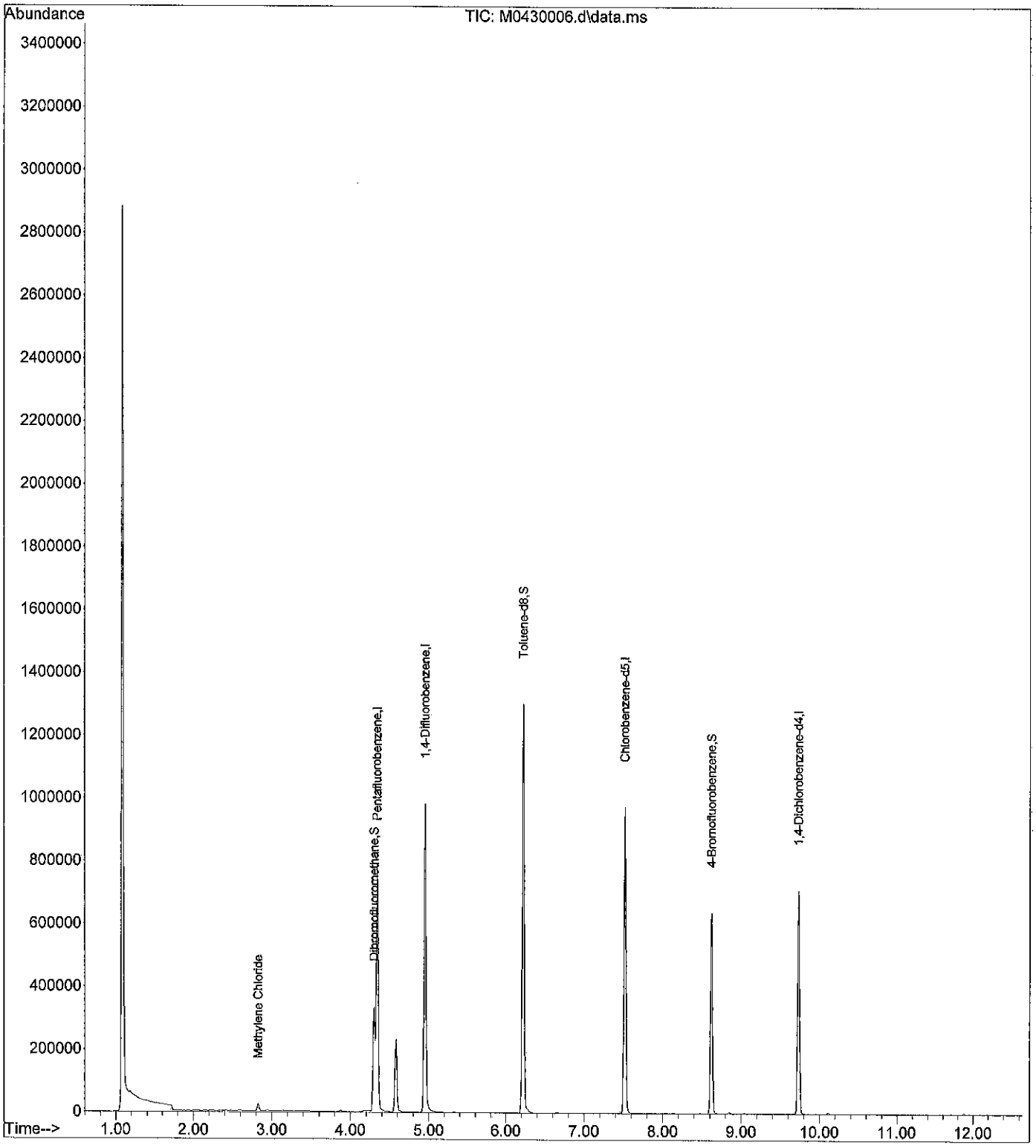
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	513198	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	733641	10.00	ppb	0.00
38) Chlorobenzene-d5	7.519	117	542412	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.732	152	205134	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	186821	10.06	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 100.60%			
36) Toluene-d8	6.220	98	797865	9.94	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.40%			
54) 4-Bromofluorobenzene	8.622	95	218544	9.38	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.80%			
Target Compounds						Qvalue
12) Methylene Chloride	2.824	49	12824	0.29	ppb	98

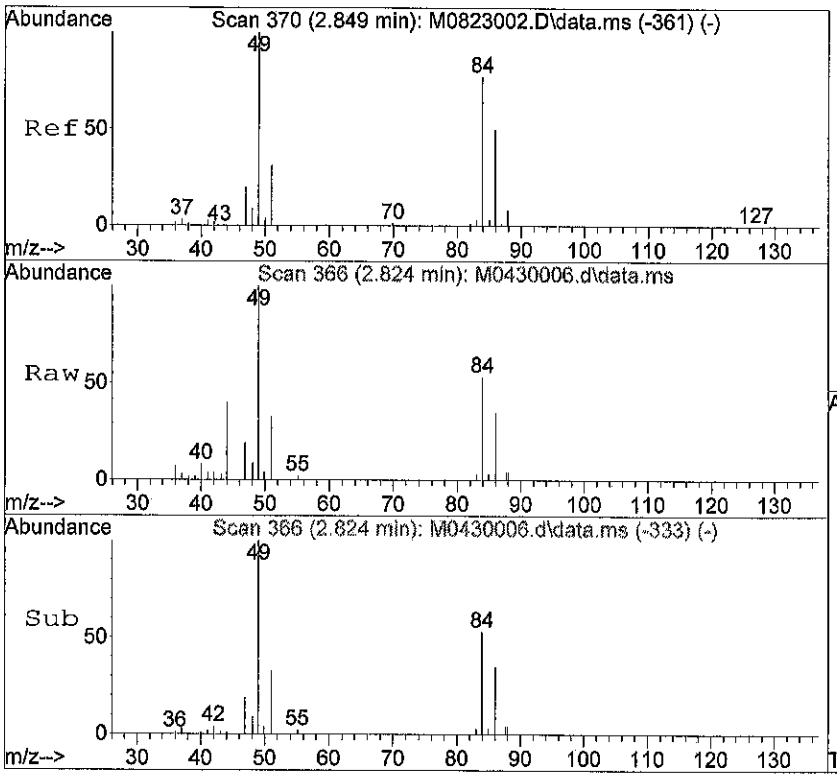
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430006.d
Acq On : 30 Apr 2014 9:17 am
Operator :
Sample : MB0430W1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 30 10:08:40 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

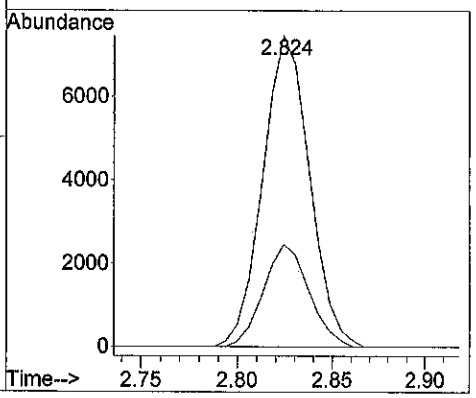




#12
Methylene Chloride
Concen: 0.29 ppb
RT: 2.824 min Scan# 366
Delta R.T. 0.000 min
Lab File: M0430006.d
Acq: 30 Apr 2014 9:17 am

Tgt Ion: 49 Resp: 12824

Ion	Ratio	Lower	Upper
49	100		
51	31.9	24.8	37.2



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501005.d
Acq On : 1 May 2014 9:17 am
Operator :
Sample : MB0501W1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 01 10:30:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

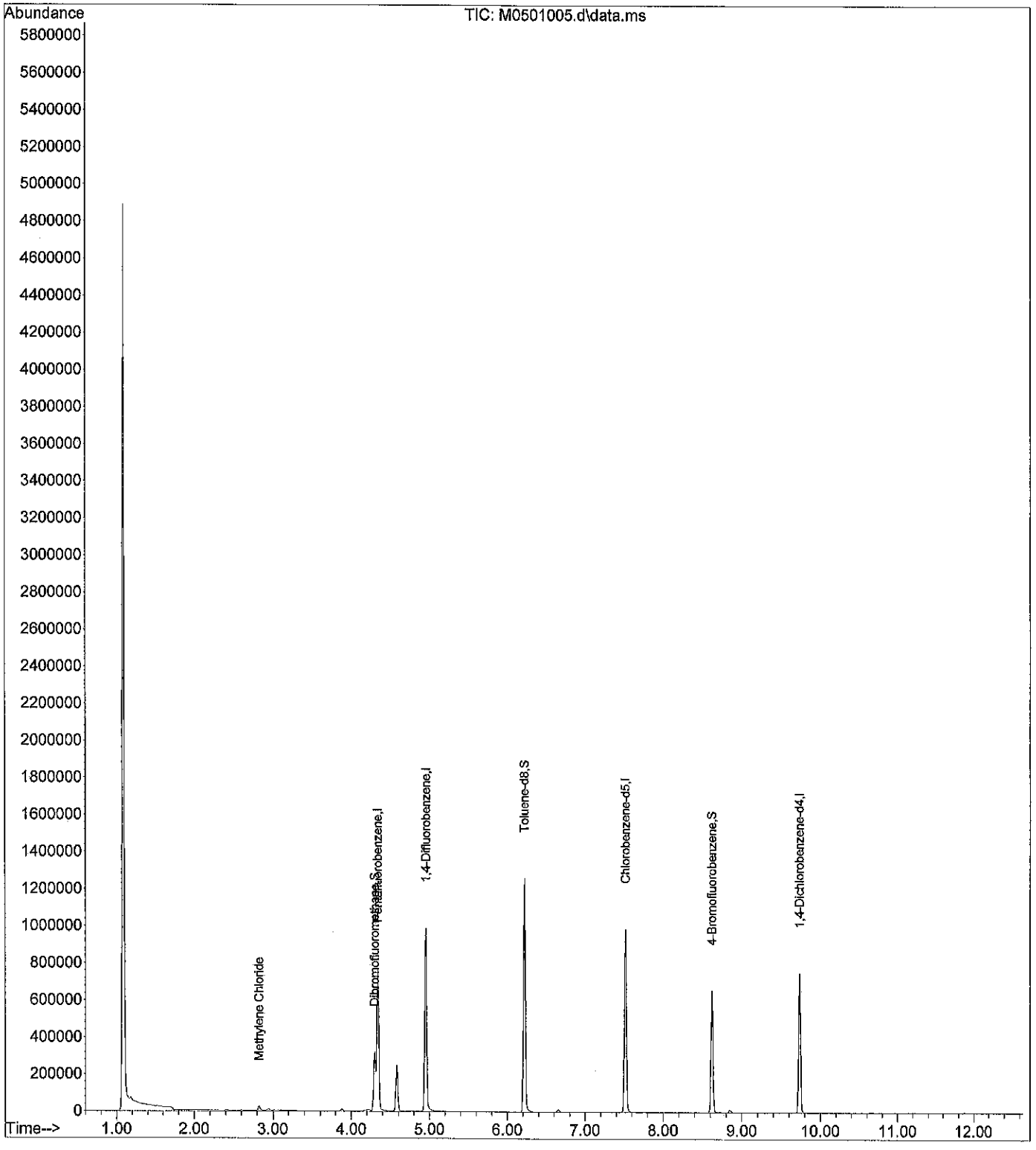
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	509176	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	720453	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	553393	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	213784	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	174716	9.48	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 94.80%			
36) Toluene-d8	6.220	98	783239	9.93	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.30%			
54) 4-Bromofluorobenzene	8.622	95	219426	9.23	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.30%			
Target Compounds						Qvalue
12) Methylene Chloride	2.824	49	13283	0.30	ppb	100

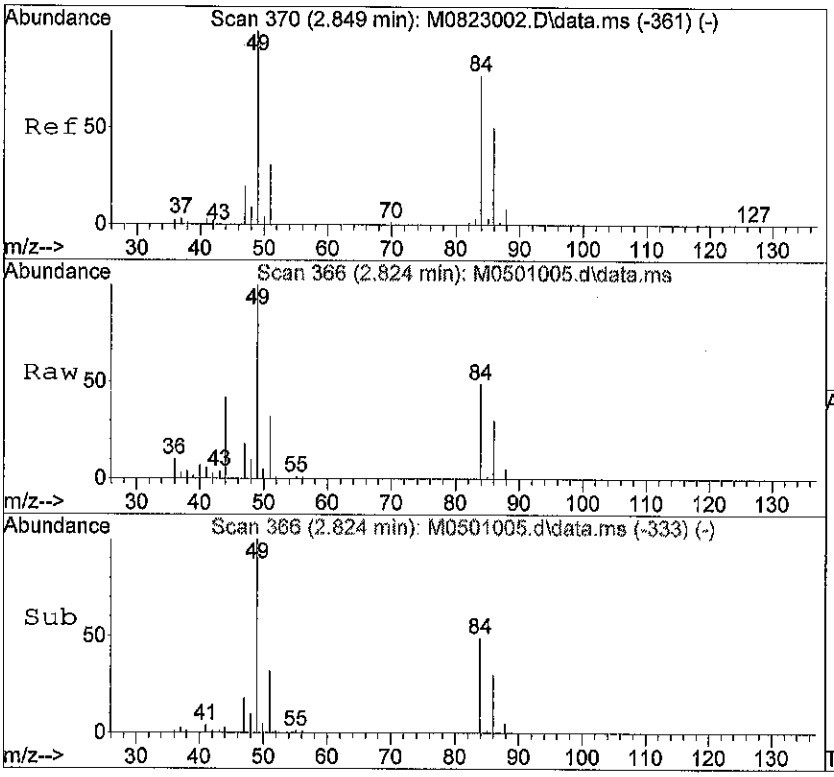
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501005.d
Acq On : 1 May 2014 9:17 am
Operator :
Sample : MB0501W1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 01 10:30:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

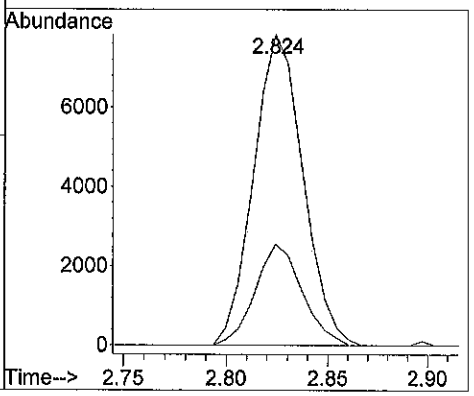




#12
Methylene Chloride
Concen: 0.30 ppb
RT: 2.824 min Scan# 366
Delta R.T. 0.000 min
Lab File: M0501005.d
Acq: 1 May 2014 9:17 am

Tgt Ion: 49 Resp: 13283

Ion	Ratio	Lower	Upper
49	100		
51	30.9	24.8	37.2



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430004.d
Acq On : 30 Apr 2014 8:31 am
Operator :
Sample : SB0430W1/T1
Misc : V3-125-17
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 30 09:10:29 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

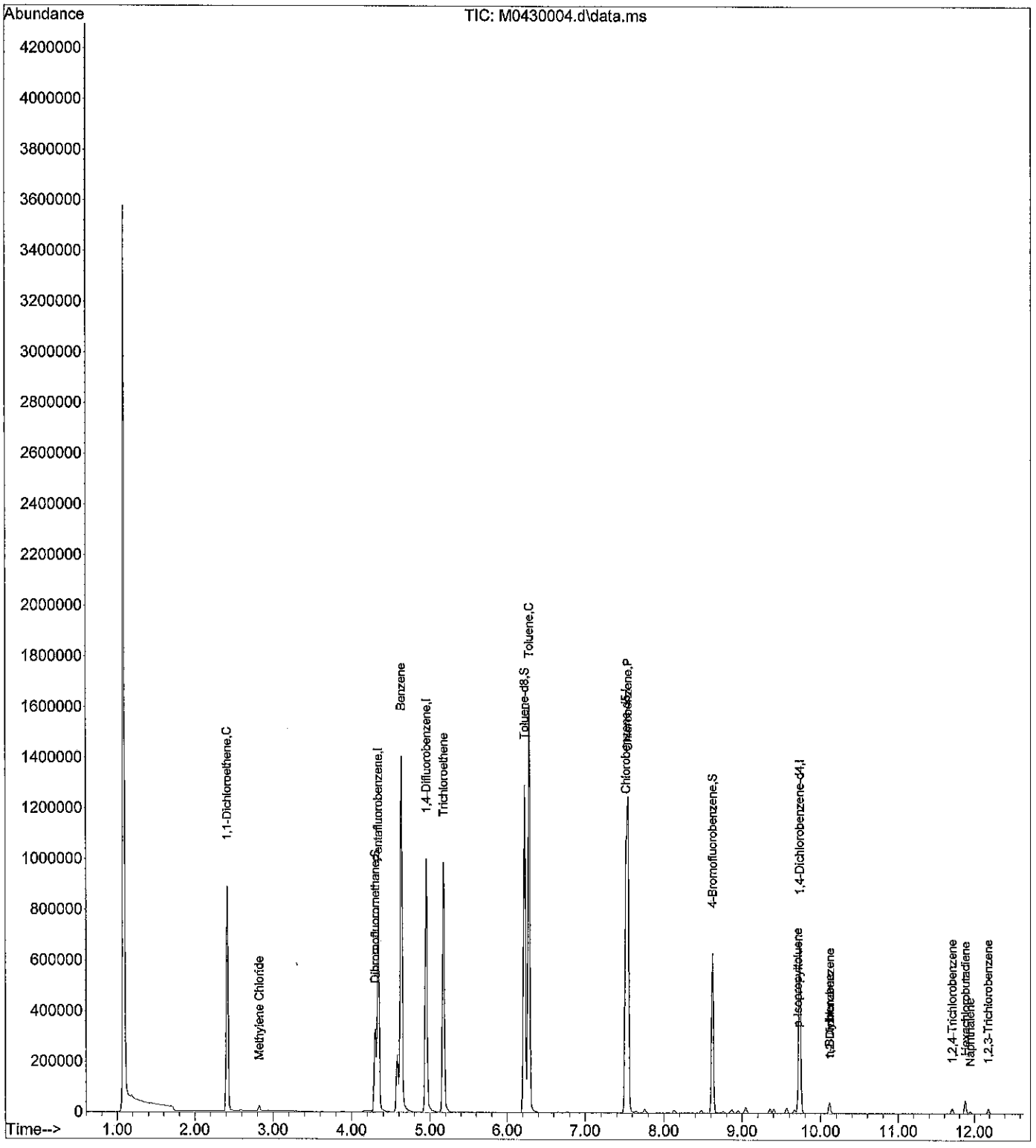
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	529942	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	752827	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	531963	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	195935	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	180357	9.41	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 94.10%				
36) Toluene-d8	6.220	98	803432	9.75	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 97.50%				
54) 4-Bromofluorobenzene	8.622	95	217469	9.52	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 95.20%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	574038	10.94	ppb		99
12) Methylene Chloride	2.824	49	13408	0.29	ppb		96
26) Benzene	4.629	78	1040153	9.89	ppb		99
29) Trichloroethene	5.171	130	319527	9.60	ppb		99
37) Toluene	6.275	91	1127598	9.88	ppb		99
46) Chlorobenzene	7.543	112	633332	10.70	ppb		99
67) p-Isopropyltoluene	9.713	119	14862	0.22	ppb		99
69) 1,2-Dichlorobenzene	10.121	146	5372	0.23	ppb		98
70) n-Butylbenzene	10.115	91	17655	0.30	ppb		100
72) 1,2,4-Trichlorobenzene	11.707	180	7444	0.93	ppb		99
73) Hexachlorobutadiene	11.883	225	12226	1.62	ppb		94
74) Naphthalene	11.944	128	6577	1.27	ppb	#	90
75) 1,2,3-Trichlorobenzene	12.182	180	7128	1.41	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430004.d
Acq On : 30 Apr 2014 8:31 am
Operator :
Sample : SB0430W1/T1
Misc : V3-125-17
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 30 09:10:29 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430005.d
Acq On : 30 Apr 2014 8:54 am
Operator :
Sample : SBD0430W1/T1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 30 09:11:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

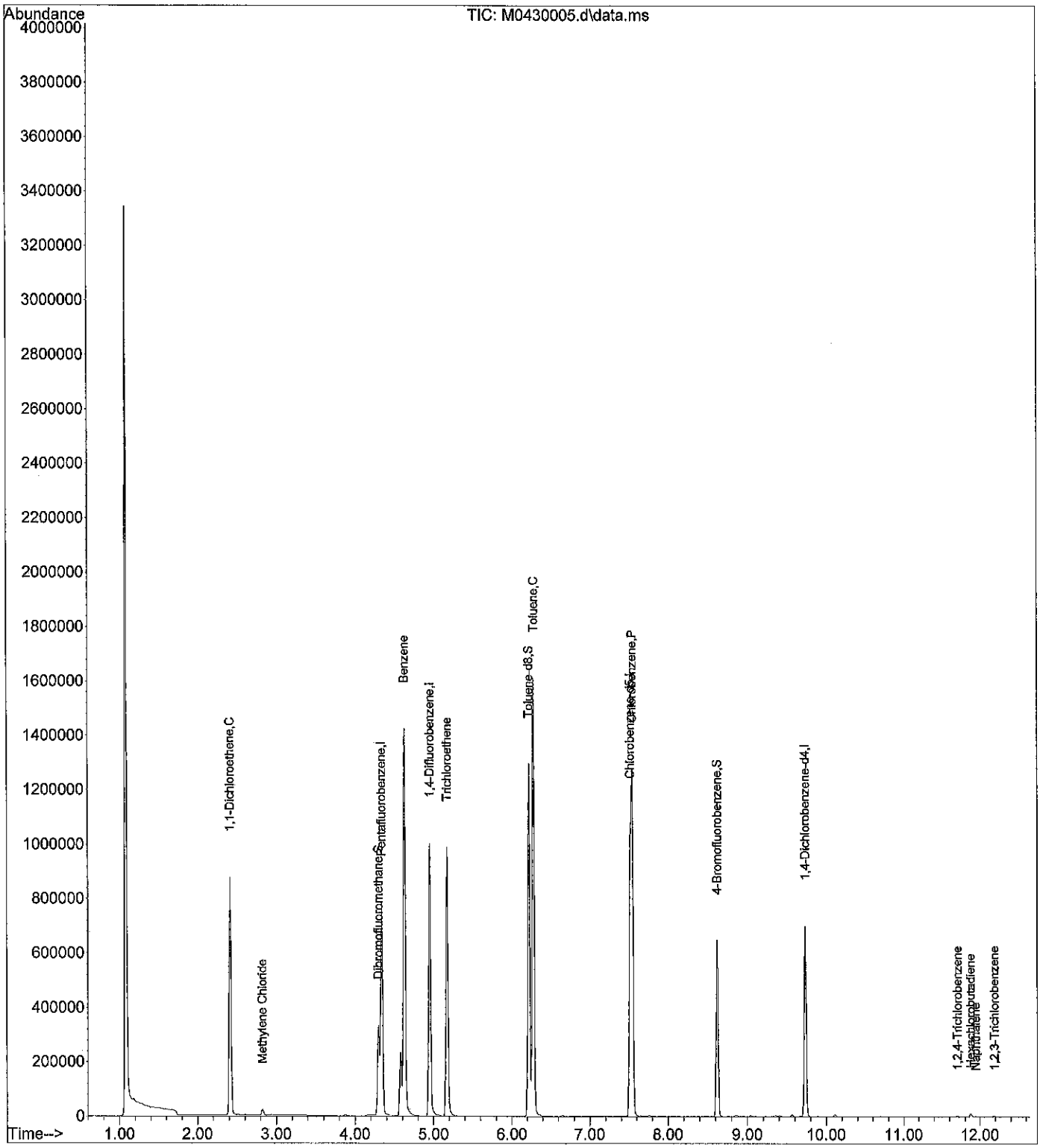
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	514950	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	736630	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	536298	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	199743	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	181744	9.75	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 97.50%				
36) Toluene-d8	6.220	98	811286	10.06	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.60%				
54) 4-Bromofluorobenzene	8.622	95	218389	9.48	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.80%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	559686	10.98	ppb		99
12) Methylene Chloride	2.824	49	13937	0.31	ppb		99
26) Benzene	4.629	78	1051009	10.28	ppb		99
29) Trichloroethene	5.171	130	314804	9.67	ppb		99
37) Toluene	6.281	91	1124362	10.07	ppb		100
46) Chlorobenzene	7.543	112	645154	10.81	ppb		99
72) 1,2,4-Trichlorobenzene	11.707	180	1359	0.29	ppb		95
73) Hexachlorobutadiene	11.877	225	2761	0.36	ppb		95
74) Naphthalene	11.944	128	1026	0.79	ppb	#	70
75) 1,2,3-Trichlorobenzene	12.188	180	1107	0.37	ppb	#	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430005.d
Acq On : 30 Apr 2014 8:54 am
Operator :
Sample : SBD0430W1/T1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 30 09:11:28 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501003.d
Acq On : 1 May 2014 8:31 am
Operator :
Sample : SB0501W1
Misc : V3-125-17
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 01 08:45:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

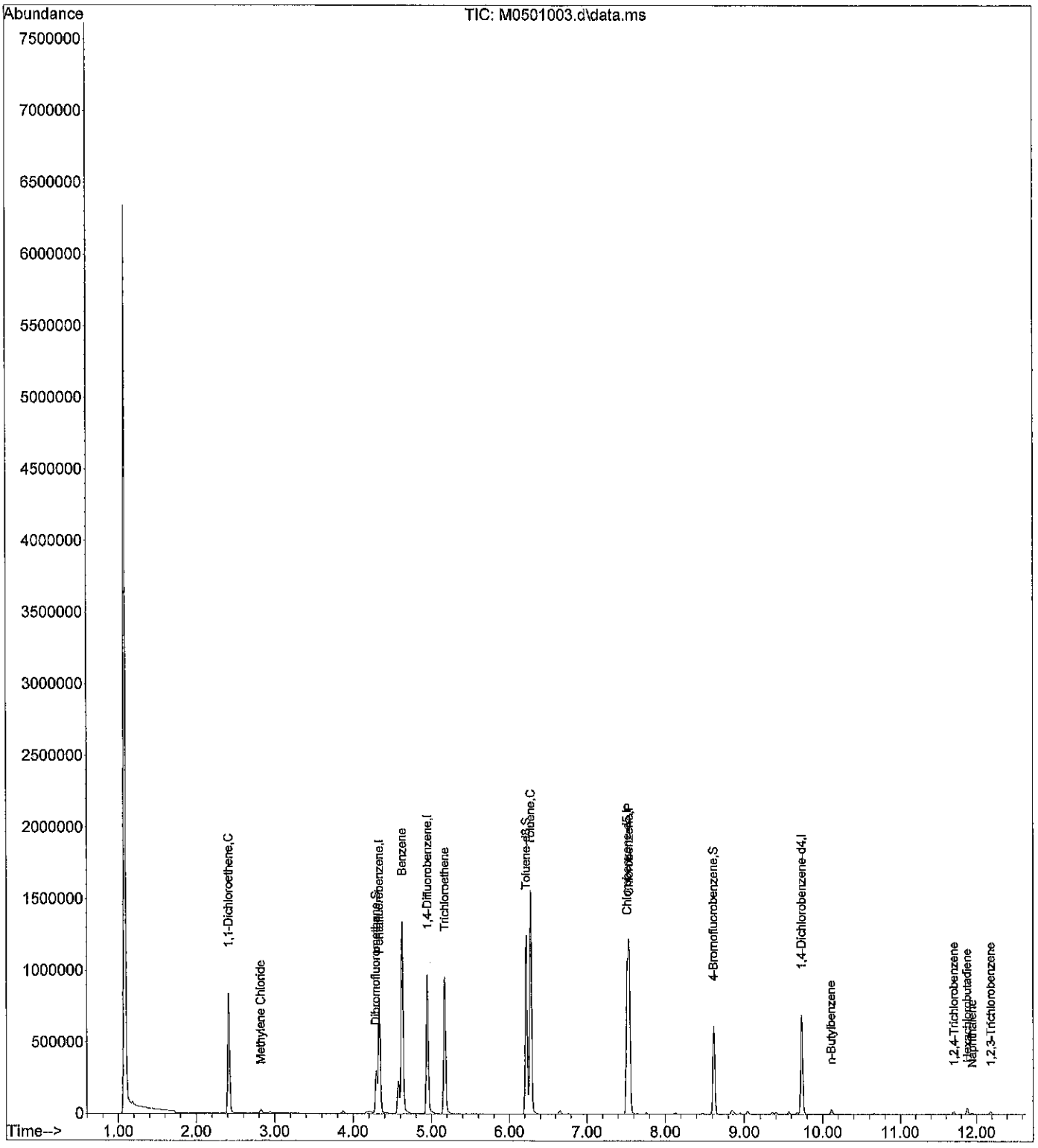
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	524083	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	736760	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	529054	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	194560	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.293	111	166956	8.80	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 88.00%			
36) Toluene-d8	6.220	98	787151	9.76	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 97.60%			
54) 4-Bromofluorobenzene	8.616	95	210378	9.26	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.60%			
Target Compounds						Qvalue
8) 1,1-Dichloroethene	2.416	61	540004	10.41	ppb	98
12) Methylene Chloride	2.824	49	13664	0.30	ppb	98
26) Benzene	4.629	78	1009555	9.70	ppb	100
29) Trichloroethene	5.171	130	313038	9.61	ppb	99
37) Toluene	6.275	91	1084826	9.71	ppb	99
46) Chlorobenzene	7.543	112	626938	10.65	ppb	99
70) n-Butylbenzene	10.109	91	13271	0.23	ppb	98
72) 1,2,4-Trichlorobenzene	11.707	180	6788	0.87	ppb	92
73) Hexachlorobutadiene	11.877	225	9408	1.26	ppb	98
74) Naphthalene	11.944	128	7101	1.32	ppb	99
75) 1,2,3-Trichlorobenzene	12.188	180	6934	1.39	ppb	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501003.d
Acq On : 1 May 2014 8:31 am
Operator :
Sample : SB0501W1
Misc : V3-125-17
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 01 08:45:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501004.d
Acq On : 1 May 2014 8:54 am
Operator :
Sample : SBD0501W1
Misc : V3-125-17
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 01 09:16:44 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

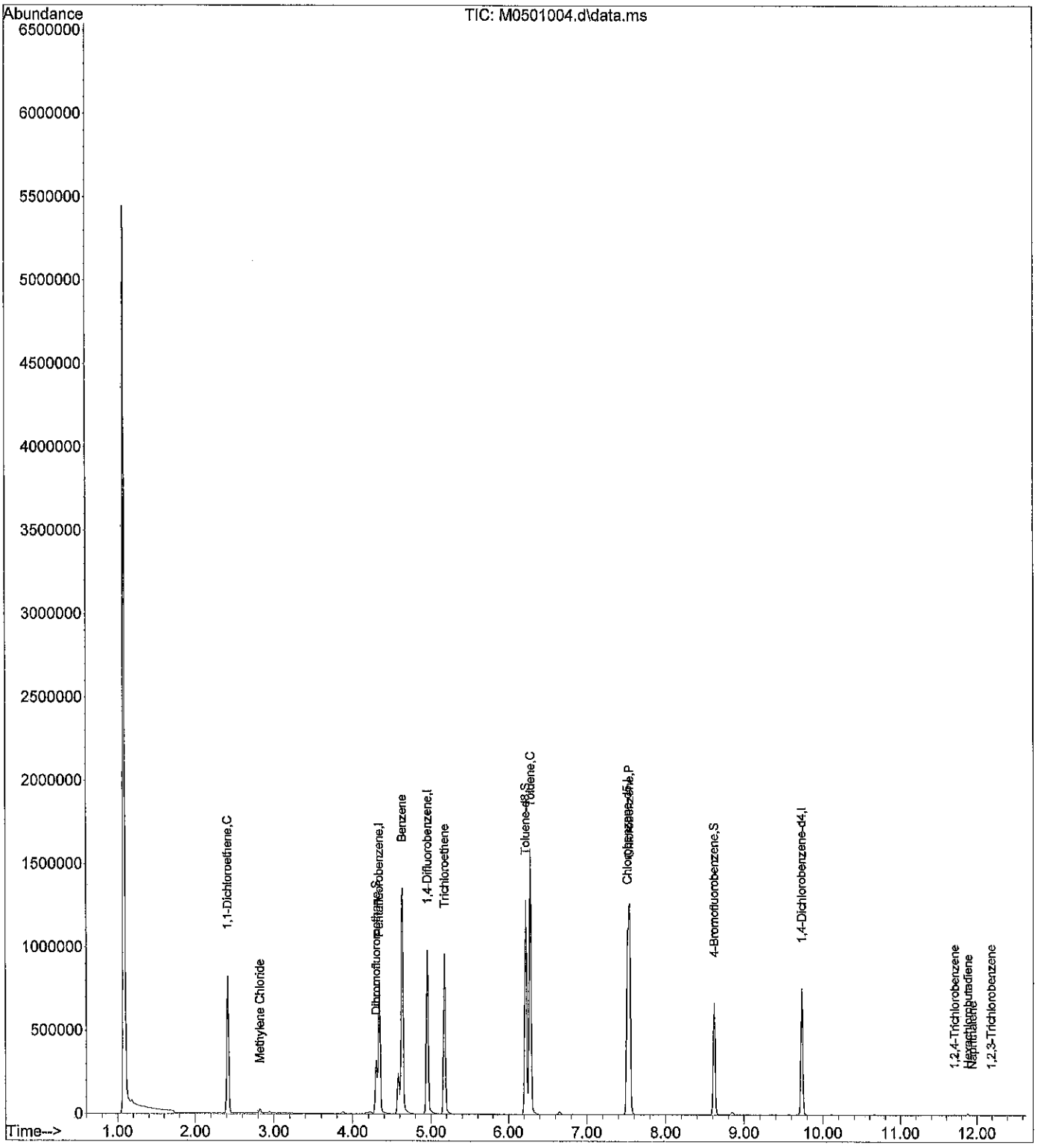
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	515554	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	733834	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	553906	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	213829	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	174227	9.34	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 93.40%				
36) Toluene-d8	6.220	98	794699	9.90	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.00%				
54) 4-Bromofluorobenzene	8.622	95	224258	9.42	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.20%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	531004	10.40	ppb		100
12) Methylene Chloride	2.824	49	13744	0.31	ppb		94
26) Benzene	4.629	78	1008596	9.85	ppb		100
29) Trichloroethene	5.171	130	305052	9.40	ppb		98
37) Toluene	6.281	91	1096425	9.86	ppb		100
46) Chlorobenzene	7.543	112	644950	10.46	ppb		100
72) 1,2,4-Trichlorobenzene	11.707	180	856	0.23	ppb	#	82
73) Hexachlorobutadiene	11.883	225	1791	0.22	ppb		92
74) Naphthalene	11.944	128	666	0.75	ppb	#	70
75) 1,2,3-Trichlorobenzene	12.188	180	1084	0.35	ppb	#	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501004.d
Acq On : 1 May 2014 8:54 am
Operator :
Sample : SBD0501W1
Misc : V3-125-17
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 01 09:16:44 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Compound List Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140429W.M
Title :
Last Update : Tue Apr 29 13:05:18 2014
Response Via : Initial Calibration

Total Cpnds : 75

PK#	Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1 I	Pentafluorobenzene	168	4.336	1.000	A	0	A	B
2	Dichlorodifluoromethane	85	1.209	0.279	L	1	A	B
3 P	Chloromethane	50	1.343	0.310	A	1	A	B
4 C	Vinyl Chloride	62	1.428	0.329	A	1	A	B
5	Bromomethane	96	1.690	0.390	A	1	A	B
6	Chloroethane	64	1.769	0.408	A	1	A	B
7	Trichlorofluoromethane	101	1.977	0.456	A	1	A	B
8 C	1,1-Dichloroethene	61	2.416	0.557	A	1	A	B
9	Acetone	43	2.483	0.573	A	1	A	B
10	Iodomethane	142	2.538	0.585	L	1	A	B
11	Carbon Disulfide	76	2.592	0.598	A	1	A	B
12	Methylene Chloride	49	2.824	0.651	A	1	A	B
13	(trans) 1,2-Dichloroethene	61	3.056	0.705	A	1	A	B
14	Methyl t-Butyl Ether	73	3.068	0.708	A	3	A	B
15 P	1,1-Dichloroethane	63	3.409	0.786	A	1	A	B
16	Vinyl Acetate	43	3.464	0.799	L	1	A	B
17	2,2-Dichloropropane	77	3.897	0.899	A	1	A	B
18	(cis) 1,2-Dichloroethene	61	3.897	0.899	A	1	A	B
19	2-Butanone	43	3.928	0.906	A	1	A	B
20	Bromochloromethane	130	4.098	0.945	A	3	A	B
21 C	Chloroform	83	4.165	0.961	A	1	A	B
22	1,1,1-Trichloroethane	97	4.318	0.996	A	1	A	B
23 S	Dibromofluoromethane	111	4.299	0.991	A	1	A	B
24	Carbon Tetrachloride	117	4.458	1.028	A	1	A	B
25	1,1-Dichloropropene	75	4.452	1.027	A	1	A	B
26	Benzene	78	4.629	1.068	A	1	A	B
27	1,2-Dichloroethane	62	4.641	1.070	A	1	A	B
28 I	1,4-Difluorobenzene	114	4.952	1.000	A	0	A	B
29	Trichloroethene	130	5.171	1.044	A	1	A	B
30 C	1,2-Dichloropropane	63	5.360	1.082	A	1	A	B
31	Dibromomethane	174	5.464	1.103	A	2	A	B
32	Bromodichloromethane	83	5.598	1.130	A	1	A	B
33	2-Chloroethyl Vinyl Ether	63	5.860	1.183	L	1	A	B
34	(cis) 1,3-Dichloropropene	75	5.982	1.208	A	1	A	B
35	Methyl Isobutyl Ketone	43	6.122	1.236	A	3	A	B
36 S	Toluene-d8	98	6.220	1.256	A	1	A	B
37 C	Toluene	91	6.281	1.268	A	1	A	B
38 I	Chlorobenzene-d5	117	7.518	1.000	A	1	A	B
39	(trans) 1,3-Dichloropropene	75	6.470	0.861	A	1	A	B
40	1,1,2-Trichloroethane	97	6.634	0.882	A	1	A	B
41	Tetrachloroethene	166	6.769	0.900	A	2	A	B
42	1,3-Dichloropropane	76	6.787	0.903	A	1	A	B
43	2-Hexanone	43	6.866	0.913	A	3	A	B
44	Dibromochloromethane	129	6.988	0.930	A	2	A	B
45	1,2-Dibromoethane	107	7.092	0.943	A	1	A	B
46 P	Chlorobenzene	112	7.543	1.003	A	1	A	B
47	1,1,1,2-Tetrachloroethane	133	7.616	1.013	A	2	A	B
48 C	Ethylbenzene	91	7.646	1.017	A	1	A	B
49	m,p-Xylene	91	7.756	1.032	A	1	A	B
50	o-Xylene	91	8.128	1.081	A	1	A	B
51	Styrene	104	8.140	1.083	A	0	A	B
52 P	Bromoform	173	8.311	1.105	A	2	A	B
53	Isopropylbenzene	105	8.475	1.127	A	1	A	B
54 S	4-Bromofluorobenzene	95	8.616	1.146	A	2	A	B

55 I	1,4-Dichlorobenzene-d4	152	9.731	1.000	A	1	A	B
56	Bromobenzene	156	8.762	0.900	A	1	A	B
57 P	1,1,2,2-Tetrachloroethane	83	8.762	0.900	A	1	A	B
58	1,2,3-Trichloropropane	75	8.799	0.904	A	1	A	B
59	n-Propylbenzene	91	8.872	0.912	A	1	A	B
60	2-Chlorotoluene	126	8.951	0.920	A	1	A	B
61	4-Chlorotoluene	126	9.055	0.931	A	1	A	B
62	1,3,5-Trimethylbenzene	105	9.042	0.929	A	1	A	B
63	tert-Butylbenzene	119	9.353	0.961	A	1	A	B
64	1,2,4-Trimethylbenzene	105	9.402	0.966	A	1	A	B
65	sec-Butylbenzene	105	9.567	0.983	A	1	A	B
66	1,3-Dichlorobenzene	146	9.670	0.994	A	1	A	B
67	p-Isopropyltoluene	119	9.713	0.998	A	1	A	B
68	1,4-Dichlorobenzene	146	9.756	1.003	A	1	A	B
69	1,2-Dichlorobenzene	146	10.115	1.039	A	1	A	B
70	n-Butylbenzene	91	10.109	1.039	A	1	A	B
71	1,2-Dibromo-3-chloropropane	157	10.884	1.118	A	2	A	B
72	1,2,4-Trichlorobenzene	180	11.700	1.202	L	2	A	B
73	Hexachlorobutadiene	225	11.877	1.221	A	2	A	B
74	Naphthalene	128	11.944	1.227	L	1	A	B
75	1,2,3-Trichlorobenzene	180	12.182	1.252	L	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

M140429W.M Tue Apr 29 14:15:54 2014

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140429W.M
Title :
Last Update : Tue Apr 29 13:05:18 2014
Response Via : Initial Calibration

Calibration Files
.2 =M0429003.d 1 =M0429004.d 2 =M0429005.d 5 =M0429006.d 10 =M0429007.d 25 =M0429008.d
50 =M0429010.d .1 =M0716005.d

		Compound	.2	1	2	5	10	25	50	.1	Avg	%RSD
		ISTD										
1)	I	Pentafluorobenzene										
2)		Dichlorodifluo...	0.344	0.372	0.518	0.429	0.420	0.685	0.663		0.490#	27.98
3)	P	Chloromethane	0.896	0.816	0.926	0.846	0.839	1.063	1.052		0.920	11.01
4)	C	Vinyl Chloride	0.743	0.733	0.835	0.782	0.771	0.959	0.915		0.820#	10.68#
5)		Bromomethane	0.540	0.448	0.421	0.396	0.380	0.433	0.419		0.434#	11.99
6)		Chloroethane	0.486	0.410	0.422	0.425	0.418	0.476	0.442		0.440#	6.83
7)		Trichlorofluor...	0.960	0.914	0.903	0.910	0.904	1.005	0.973		0.939#	4.33
8)	C	1,1-Dichloroet...	1.031	0.933	0.982	0.958	0.951	1.056	1.020		0.990#	4.67#
9)		Acetone		0.075	0.078	0.060	0.059	0.059	0.057		0.065#	14.62
10)		Iodomethane		0.451	0.550	0.647	0.691	0.811	0.780		0.655#	20.94
11)		Carbon Disulfide	1.638	1.520	1.549	1.568	1.510	1.794	1.734		1.616#	6.84
12)		Methylene Chlo...		0.919	0.856	0.809	0.844	0.892	0.850		0.862#	4.48
13)		(trans) 1,2-Di...	1.054	0.980	0.981	1.004	0.965	1.062	1.042		1.012#	3.92
14)		Methyl t-Butyl...	0.618	0.615	0.621	0.628	0.618	0.677	0.669		0.635#	4.12
15)	P	1,1-Dichloroet...	1.206	1.116	1.126	1.108	1.106	1.190	1.152		1.144	3.56
16)		Vinyl Acetate		0.475	0.431	0.386	0.569	0.644	0.637		0.524#	20.77
17)		2,2-Dichloropr...	0.800	0.657	0.666	0.680	0.658	0.697	0.665		0.689#	7.40
18)		(cis) 1,2-Dich...	1.104	1.022	0.991	0.999	1.013	1.076	1.046		1.036#	4.03
19)		2-Butanone		0.118	0.105	0.100	0.103	0.104	0.098		0.105#	6.65
20)		Bromochloromet...	0.220	0.237	0.237	0.249	0.240	0.254	0.246		0.240#	4.52
21)	C	Chloroform	0.838	0.850	0.847	0.871	0.854	0.899	0.872		0.862#	2.39#
22)		1,1,1-Trichlor...	0.874	0.789	0.808	0.824	0.803	0.870	0.847		0.831#	4.03
23)	S	Dibromofluorom...	0.355	0.371	0.356	0.365	0.360	0.366	0.360		0.362#	1.52
24)		Carbon Tetrach...	0.789	0.778	0.766	0.796	0.767	0.823	0.806		0.789#	2.65
25)		1,1-Dichloropr...	0.783	0.708	0.681	0.721	0.710	0.754	0.728		0.726#	4.61
26)		Benzene	2.041	1.977	1.928	1.964	1.943	2.049	1.997		1.986#	2.32
27)		1,2-Dichloroet...	0.479	0.511	0.481	0.496	0.498	0.519	0.504		0.498#	2.94
		ISTD										
28)	I	1,4-Difluorobenzene										
29)		Trichloroethene	0.472	0.435	0.426	0.455	0.423	0.444	0.438		0.442#	3.82
30)	C	1,2-Dichloropr...	0.360	0.361	0.374	0.382	0.384	0.401	0.398		0.380#	4.26#
31)		Dibromomethane	0.130	0.133	0.130	0.142	0.137	0.148	0.140		0.137#	4.77
32)		Bromodichlorom...	0.325	0.338	0.359	0.373	0.363	0.388	0.382		0.361#	6.37
33)		2-Chloroethyl ...			0.002	0.003	0.003	0.004	0.004		0.003#	32.30
34)		(cis) 1,3-Dich...	0.325	0.357	0.363	0.389	0.390	0.416	0.410		0.379#	8.55
35)		Methyl Isobuty...	0.127	0.131	0.128	0.123	0.137	0.148	0.143		0.134#	6.79
36)	S	Toluene-d8	1.092	1.097	1.083	1.099	1.083	1.102	1.104		1.094#	0.77
37)	C	Toluene	1.583	1.451	1.480	1.497	1.473	1.576	1.550		1.516#	3.51#

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140429W.M
Title :

			ISTD								
38)	I	Chlorobenzene-d5								0.333#	6.45
39)		(trans) 1,3-Di...	0.312	0.313	0.307	0.338	0.348	0.356	0.354	0.206#	2.44
40)		1,1,2-Trichlor...	0.202	0.197	0.208	0.209	0.208	0.211	0.209	0.592#	4.92
41)		Tetrachloroethene	0.653	0.570	0.566	0.595	0.582	0.595	0.583	0.356#	2.50
42)		1,3-Dichloropr...	0.354	0.337	0.357	0.360	0.357	0.366	0.360	0.114#	8.28
43)		2-Hexanone	0.095	0.110	0.114	0.115	0.118	0.124	0.119	0.280#	5.51
44)		Dibromochlorom...	0.275	0.255	0.270	0.280	0.286	0.298	0.299	0.184#	4.13
45)		1,2-Dibromoethane	0.172	0.177	0.183	0.190	0.187	0.193	0.189	1.113	1.37
46)	P	Chlorobenzene	1.109	1.088	1.105	1.122	1.106	1.131	1.128	0.364#	4.97
47)		1,1,1,2-Tetrac...	0.349	0.336	0.356	0.372	0.370	0.383	0.384	2.126#	4.10#
48)	C	Ethylbenzene	2.133	1.989	2.050	2.125	2.127	2.238	2.219	1.582#	4.29
49)		m,p-Xylene	1.562	1.471	1.524	1.601	1.607	1.655	1.655	1.449#	5.08
50)		o-Xylene	1.406	1.322	1.413	1.469	1.478	1.527	1.525	1.115#	7.92
51)		Styrene	0.978	1.010	1.112	1.150	1.174	1.202	1.182	0.149	8.44
52)	P	Bromoform	0.129	0.136	0.148	0.149	0.155	0.161	0.163	1.839#	5.78
53)		Isopropylbenzene	1.687	1.739	1.782	1.853	1.897	1.968	1.944	0.430#	2.12
54)	S	4-Bromofluorob...	0.413	0.429	0.441	0.434	0.430	0.436	0.424		
			ISTD								
55)	I	1,4-Dichlorobenzen...								0.949#	3.89
56)		Bromobenzene	1.026	0.932	0.911	0.934	0.933	0.947	0.958	0.399	4.07
57)	P	1,1,2,2-Tetrac...	0.382	0.391	0.387	0.388	0.410	0.420	0.418	0.321#	4.47
58)		1,2,3-Trichlor...	0.343	0.339	0.308	0.305	0.321	0.316	0.319	5.027#	5.36
59)		n-Propylbenzene	5.443	4.757	4.678	4.924	4.997	5.194	5.195	1.015#	2.42
60)		2-Chlorotoluene	0.998	0.986	1.010	0.997	1.022	1.048	1.046	1.008#	2.04
61)		4-Chlorotoluene	1.044	1.002	0.985	0.995	0.992	1.021	1.017	3.759#	3.97
62)		1,3,5-Trimethy...	3.798	3.557	3.571	3.744	3.794	3.920	3.927	2.981#	3.95
63)		tert-Butylbenzene	2.974	2.880	2.824	2.921	3.011	3.106	3.150	3.490#	4.86
64)		1,2,4-Trimethy...	3.405	3.221	3.352	3.534	3.580	3.667	3.671	4.208#	4.13
65)		sec-Butylbenzene	4.117	3.959	4.085	4.165	4.304	4.396	4.430	1.651#	1.97
66)		1,3-Dichlorobe...	1.621	1.644	1.621	1.624	1.667	1.682	1.701	3.402#	6.10
67)		p-Isopropyltol...	3.277	3.140	3.181	3.418	3.522	3.632	3.643	1.714#	2.98
68)		1,4-Dichlorobe...	1.768	1.653	1.639	1.700	1.734	1.748	1.756	1.213#	4.94
69)		1,2-Dichlorobe...	1.146	1.136	1.189	1.209	1.271	1.253	1.288	3.009#	5.85
70)		n-Butylbenzene	3.059	2.824	2.742	2.965	3.078	3.178	3.214	0.062#	6.07
71)		1,2-Dibromo-3-...		0.058	0.061	0.059	0.064	0.065	0.068	0.415#	15.45
72)		1,2,4-Trichlor...	0.326	0.370	0.372	0.405	0.457	0.470	0.504	0.384#	8.26
73)		Hexachlorobuta...	0.390	0.336	0.350	0.377	0.407	0.415	0.415	0.465#	24.48
74)		Naphthalene		0.323	0.365	0.419	0.525	0.543	0.616	0.244#	20.41
75)		1,2,3-Trichlor...	0.173	0.208	0.208	0.242	0.283	0.285	0.307		

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429003.d
Acq On : 29 Apr 2014 8:22 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 29 08:35:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	550254	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	768647	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	575048	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	223845	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	195561	7.80	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 78.00%				
36) Toluene-d8	6.220	98	839631	9.27	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 92.70%				
54) 4-Bromofluorobenzene	8.616	95	237535	9.31	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.10%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	3783	0.09	ppb		93
3) Chloromethane	1.343	50	9858	0.15	ppb		96
4) Vinyl Chloride	1.428	62	8172	0.15	ppb		94
5) Bromomethane	1.684	96	5948	0.23	ppb		90
6) Chloroethane	1.770	64	5352	0.19	ppb		93
7) Trichlorofluoromethane	1.977	101	10566	0.18	ppb		94
8) 1,1-Dichloroethene	2.416	61	11345	0.18	ppb		100
9) ~~Acetone~~	2.483	43	1501	Below Cal		#	82
10) ~~Iodomethane~~	2.538	142	3216	0.46	ppb		95
11) Carbon Disulfide	2.593	76	18022	0.18	ppb		96
12) ~~Methylene~~ Chloride	2.824	49	14552	0.27	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	11604	0.18	ppb		96
14) Methyl t-Butyl Ether	3.068	73	6805	0.17	ppb		98
15) 1,1-Dichloroethane	3.409	63	13275	0.18	ppb		99
16) ~~Vinyl Acetate~~	3.458	43	7001	0.23	ppb	#	93
17) 2,2-Dichloropropane	3.891	77	8808	0.19	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	12148	0.18	ppb		97
19) ~~2-Butanone~~	3.922	43	1405	0.21	ppb	#	53
20) Bromochloromethane	4.098	130	2423	0.17	ppb		94
21) Chloroform	4.165	83	9222	0.16	ppb		98
22) 1,1,1-Trichloroethane	4.312	97	9618	0.17	ppb	#	1
24) Carbon Tetrachloride	4.452	117	8682	0.17	ppb		94
25) 1,1-Dichloropropene	4.452	75	8622	0.18	ppb		100
26) Benzene	4.629	78	22458	0.18	ppb		98
27) 1,2-Dichloroethane	4.641	62	5275	0.15	ppb		97
29) Trichloroethene	5.171	130	7253	0.21	ppb		95
30) 1,2-Dichloropropane	5.360	63	5527	0.18	ppb		92
31) Dibromomethane	5.464	174	2001	0.20	ppb		92
32) Bromodichloromethane	5.598	83	4994	0.16	ppb		99
34) (cis) 1,3-Dichloropropene	5.982	75	4996	0.16	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	1952	0.17	ppb	#	83
37) Toluene	6.275	91	24335	0.19	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	3589	0.18	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	2328	0.19	ppb		97
41) Tetrachloroethene	6.769	166	7509	0.24	ppb		97
42) 1,3-Dichloropropane	6.787	76	4070	0.19	ppb		90
43) 2-Hexanone	6.866	43	1091	0.15	ppb	#	75
44) Dibromochloromethane	6.988	129	3159	0.20	ppb		97
45) 1,2-Dibromoethane	7.092	107	1974	0.19	ppb		94

SD 4/29/14

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429003.d
Acq On : 29 Apr 2014 8:22 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 29 08:35:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) Chlorobenzene	7.543	112	12758	0.20	ppb		97
47) 1,1,1,2-Tetrachloroethane	7.622	133	4013	0.19	ppb		97
48) Ethylbenzene	7.646	91	24532	0.20	ppb		100
49) m,p-Xylene	7.756	91	35923	0.38	ppb		99
50) o-Xylene	8.128	91	16172	0.19	ppb		99
51) Styrene	8.140	104	11244	0.18	ppb		100
52) Bromoform	8.311	173	1482	0.19	ppb		93
53) Isopropylbenzene	8.476	105	19403	0.18	ppb		100
56) Bromobenzene	8.762	156	4592	0.23	ppb		97
57) 1,1,2,2-Tetrachloroethane	8.762	83	1708	0.17	ppb		96
58) 1,2,3-Trichloropropane	8.799	75	1535	0.20	ppb	#	100
59) n-Propylbenzene	8.872	91	24366	0.20	ppb		95
60) 2-Chlorotoluene	8.951	126	4468	0.19	ppb		98
61) 4-Chlorotoluene	9.055	126	4673	0.21	ppb		98
62) 1,3,5-Trimethylbenzene	9.043	105	17004	0.20	ppb		97
63) tert-Butylbenzene	9.353	119	13315	0.20	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	15244	0.19	ppb		98
65) sec-Butylbenzene	9.567	105	18431	0.19	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	7255	0.21	ppb		97
67) p-Isopropyltoluene	9.713	119	14673	0.19	ppb		96
68) 1,4-Dichlorobenzene	9.756	146	7914	0.22	ppb		88
69) 1,2-Dichlorobenzene	10.115	146	5130	0.20	ppb		96
70) n-Butylbenzene	10.109	91	13696	0.20	ppb		97
72) 1,2,4-Trichlorobenzene	11.707	180	1460	0.21	ppb		98
73) Hexachlorobutadiene	11.877	225	1745	0.27	ppb		93
74) ~~Naphthalene~~	11.944	128	1123	0.13	ppb	#	70
75) 1,2,3-Trichlorobenzene	12.188	180	773	0.30	ppb	#	77

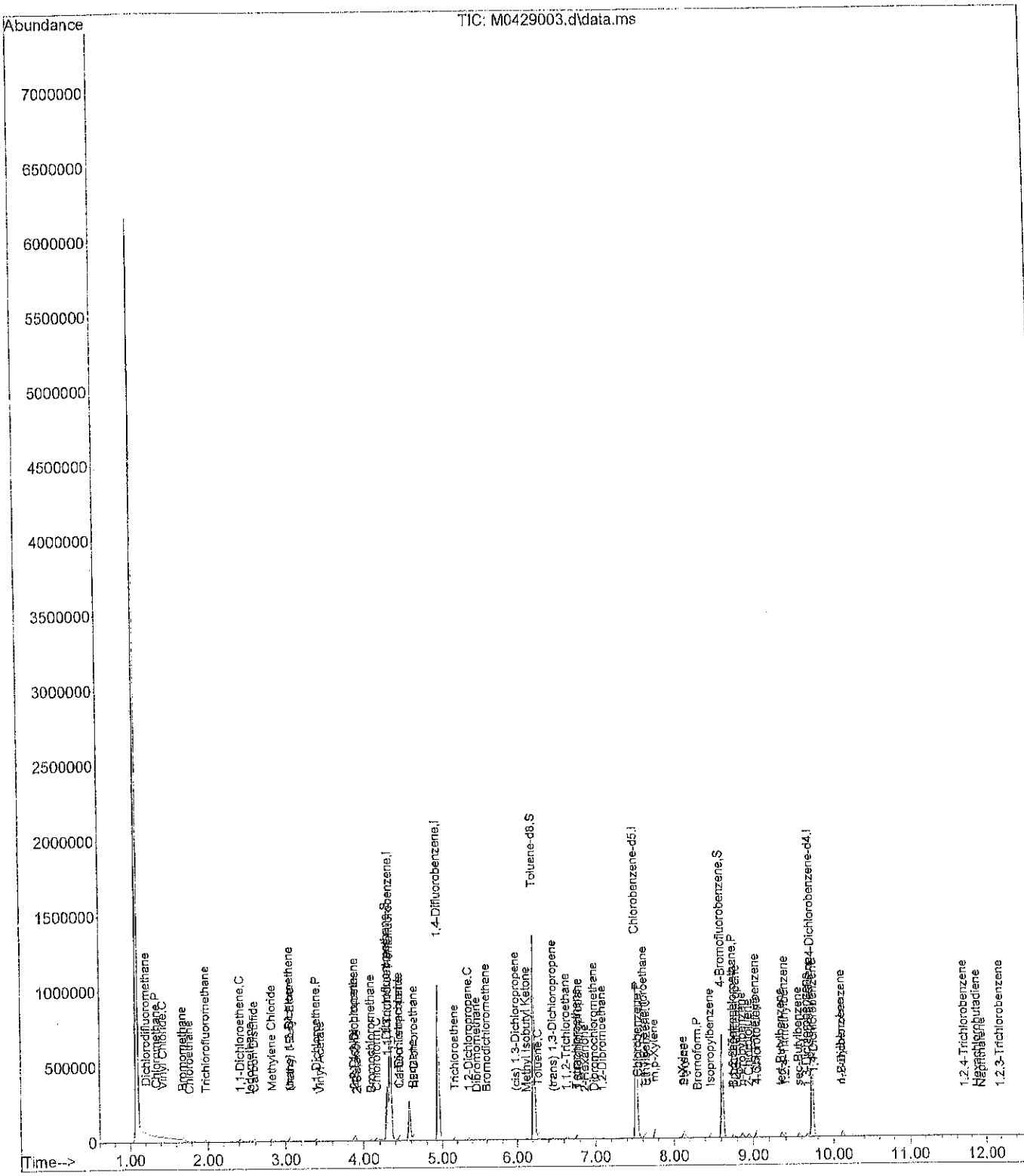
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SD 4/29/14

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429003.d
Acq On : 29 Apr 2014 8:22 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 29 08:35:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429004.d
Acq On : 29 Apr 2014 8:45 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 29 08:58:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	535221	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	768552	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	587469	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	241416	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	198339	8.14	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 81.40%				
36) Toluene-d8	6.220	98	842821	9.31	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.10%				
54) 4-Bromofluorobenzene	8.616	95	251795	9.66	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 96.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	19889	0.48	ppb		100
3) Chloromethane	1.343	50	43671	0.69	ppb		99
4) Vinyl Chloride	1.428	62	39242	0.73	ppb		100
5) Bromomethane	1.684	96	23957	0.94	ppb		95
6) Chloroethane	1.769	64	21931	0.78	ppb		97
7) Trichlorofluoromethane	1.977	101	48945	0.85	ppb		100
8) 1,1-Dichloroethene	2.416	61	49927	0.81	ppb		99
9) Acetone	2.483	43	4032	0.53	ppb		92
10) Iodomethane	2.538	142	24115	0.95	ppb		92
11) Carbon Disulfide	2.592	76	81329	0.83	ppb		100
12) Methylene Chloride	2.824	49	49199	0.93	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	52456	0.85	ppb		100
14) Methyl t-Butyl Ether	3.068	73	32923	0.84	ppb		96
15) 1,1-Dichloroethane	3.409	63	59740	0.85	ppb		98
16) Vinyl Acetate	3.464	43	25430	0.85	ppb		99
17) 2,2-Dichloropropane	3.891	77	35190	0.78	ppb		98
18) (cis) 1,2-Dichloroethene	3.897	61	54683	0.84	ppb		100
19) 2-Butanone	3.928	43	6302	0.97	ppb	#	88
20) Bromochloromethane	4.098	130	12704	0.93	ppb		91
21) Chloroform	4.165	83	45499	0.82	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	42234	0.79	ppb	#	1
24) Carbon Tetrachloride	4.452	117	41614	0.83	ppb		96
25) 1,1-Dichloropropene	4.452	75	37882	0.81	ppb		100
26) Benzene	4.629	78	105812	0.86	ppb		97
27) 1,2-Dichloroethane	4.641	62	27344	0.81	ppb		98
29) Trichloroethene	5.171	130	33467	0.99	ppb		98
30) 1,2-Dichloropropane	5.360	63	27759	0.90	ppb		99
31) Dibromomethane	5.464	174	10231	1.03	ppb		98
32) Bromodichloromethane	5.598	83	25947	0.84	ppb		99
34) (cis) 1,3-Dichloropropene	5.982	75	27432	0.87	ppb		98
35) Methyl Isobutyl Ketone	6.122	43	10065	0.89	ppb	#	97
37) Toluene	6.281	91	111532	0.89	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	18387	0.89	ppb		96
40) 1,1,2-Trichloroethane	6.634	97	11554	0.93	ppb		95
41) Tetrachloroethene	6.768	166	33461	1.04	ppb		98
42) 1,3-Dichloropropane	6.781	76	19825	0.92	ppb		97
43) 2-Hexanone	6.866	43	6441	0.87	ppb	#	98
44) Dibromochloromethane	6.988	129	15000	0.93	ppb		99
45) 1,2-Dibromoethane	7.092	107	10397	0.96	ppb		97

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429004.d
Acq On : 29 Apr 2014 8:45 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 29 08:58:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

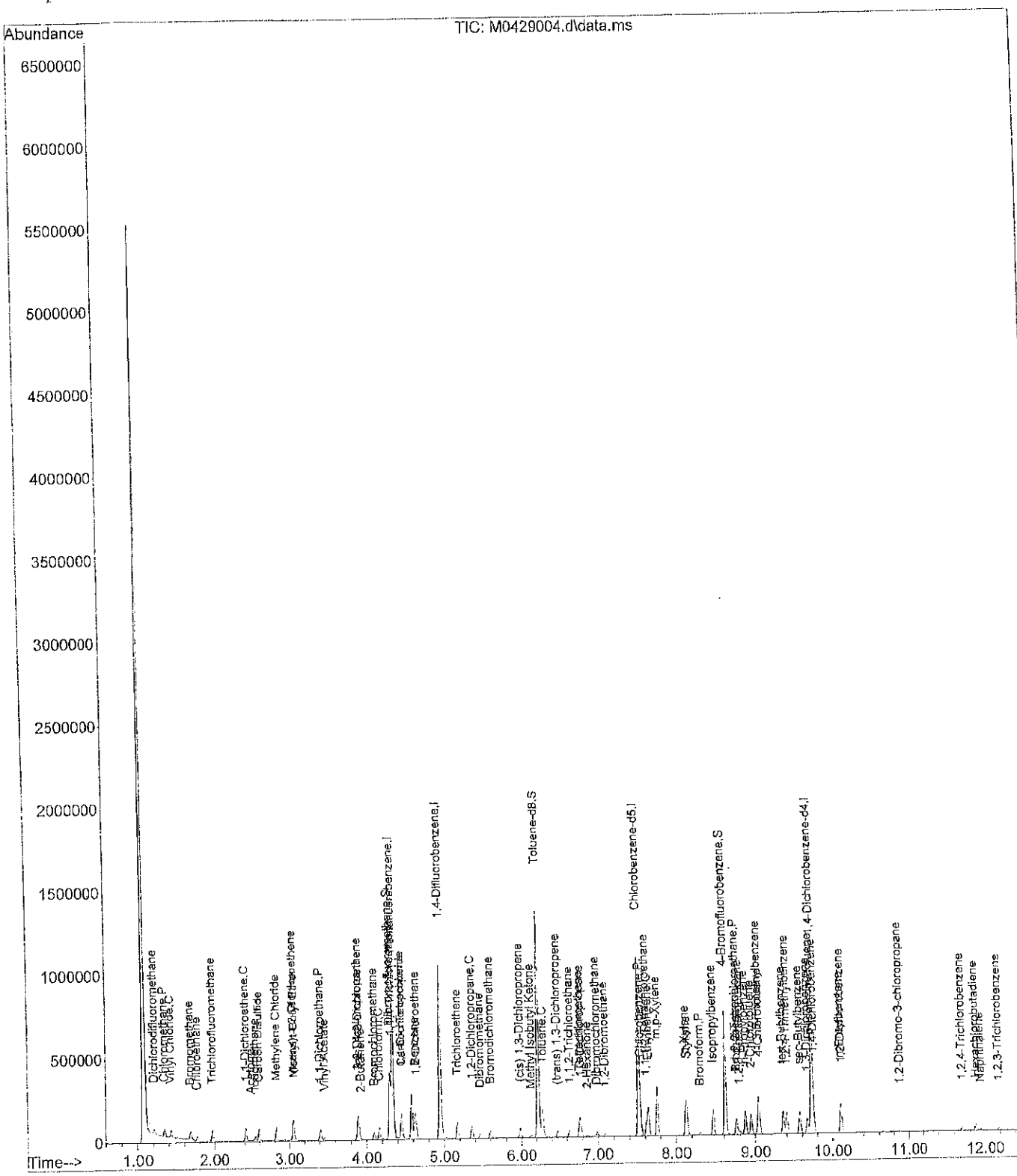
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) Chlorobenzene	7.543	112	63893	0.98	ppb		97
47) 1,1,1,2-Tetrachloroethane	7.616	133	19717	0.94	ppb		92
48) Ethylbenzene	7.646	91	116874	0.91	ppb		97
49) m,p-Xylene	7.756	91	172790	1.80	ppb		98
50) o-Xylene	8.128	91	77639	0.88	ppb		97
51) Styrene	8.140	104	59307	0.91	ppb		100
52) Bromoform	8.311	173	8011	0.98	ppb		96
53) Isopropylbenzene	8.475	105	102133	0.93	ppb		98
56) Bromobenzene	8.762	156	22496	1.03	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	9431	0.89	ppb		100
58) 1,2,3-Trichloropropane	8.799	75	8173	0.98	ppb	#	100
59) n-Propylbenzene	8.872	91	114835	0.89	ppb		99
60) 2-Chlorotoluene	8.951	126	23805	0.96	ppb		99
61) 4-Chlorotoluene	9.055	126	24186	0.99	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	85862	0.94	ppb		96
63) tert-Butylbenzene	9.353	119	69527	0.97	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	77759	0.92	ppb		98
65) sec-Butylbenzene	9.567	105	95576	0.92	ppb		97
66) 1,3-Dichlorobenzene	9.670	146	39694	1.05	ppb		98
67) p-Isopropyltoluene	9.713	119	75806	0.93	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	39916	1.01	ppb		95
69) 1,2-Dichlorobenzene	10.121	146	27428	1.00	ppb		97
70) n-Butylbenzene	10.109	91	68168	0.91	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	1393	1.15	ppb	#	74
72) 1,2,4-Trichlorobenzene	11.707	180	8921	1.18	ppb		95
73) Hexachlorobutadiene	11.883	225	8118	1.15	ppb		97
74) Naphthalene	11.944	128	7801	0.87	ppb		95
75) 1,2,3-Trichlorobenzene	12.182	180	5017	1.14	ppb		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429004.d
Acq On : 29 Apr 2014 8:45 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 29 08:58:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429005.d
Acq On : 29 Apr 2014 9:09 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 29 09:22:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	549077	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	779437	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	593647	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	253280	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	195744	7.83	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 78.30%				
36) Toluene-d8	6.220	98	844220	9.19	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 91.90%				
54) 4-Bromofluorobenzene	8.622	95	261838	9.94	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	56901	1.35	ppb		99
3) Chloromethane	1.343	50	101673	1.56	ppb		99
4) Vinyl Chloride	1.428	62	91734	1.67	ppb		99
5) Bromomethane	1.684	96	46257	1.77	ppb		98
6) Chloroethane	1.770	64	46309	1.61	ppb		98
7) Trichlorofluoromethane	1.977	101	99205	1.68	ppb		99
8) 1,1-Dichloroethene	2.416	61	107849	1.71	ppb		100
9) Acetone	2.483	43	8591	1.76	ppb		97
10) Iodomethane	2.538	142	60449	1.76	ppb		94
11) Carbon Disulfide	2.593	76	170067	1.69	ppb		99
12) Methylene Chloride	2.824	49	94046	1.73	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	107734	1.70	ppb		98
14) Methyl t-Butyl Ether	3.068	73	68215	1.70	ppb		98
15) 1,1-Dichloroethane	3.409	63	123613	1.71	ppb		99
16) Vinyl Acetate	3.464	43	47319	1.55	ppb		100
17) 2,2-Dichloropropane	3.891	77	73176	1.58	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	108850	1.63	ppb		99
19) 2-Butanone	3.928	43	11526	1.73	ppb		94
20) Bromochloromethane	4.098	130	26003	1.86	ppb		95
21) Chloroform	4.165	83	92983	1.62	ppb		99
22) 1,1,1-Trichloroethane	4.312	97	88752	1.61	ppb	#	1
24) Carbon Tetrachloride	4.452	117	84138	1.63	ppb		95
25) 1,1-Dichloropropene	4.452	75	74741	1.56	ppb		99
26) Benzene	4.629	78	211774	1.68	ppb		100
27) 1,2-Dichloroethane	4.641	62	52830	1.52	ppb		98
29) Trichloroethene	5.171	130	66421	1.93	ppb		97
30) 1,2-Dichloropropane	5.360	63	58360	1.86	ppb		99
31) Dibromomethane	5.464	174	20273	2.01	ppb		95
32) Bromodichloromethane	5.598	83	55958	1.79	ppb		96
33) 2-Chloroethyl Vinyl Ether	5.866	63	269	0.16	ppb	#	58
34) (cis) 1,3-Dichloropropene	5.982	75	56512	1.76	ppb		98
35) Methyl Isobutyl Ketone	6.122	43	20009	1.74	ppb	#	97
37) Toluene	6.275	91	230734	1.82	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	36451	1.74	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	24679	1.96	ppb		96
41) Tetrachloroethene	6.769	166	67215	2.08	ppb		100
42) 1,3-Dichloropropane	6.787	76	42396	1.94	ppb		99
43) 2-Hexanone	6.866	43	13539	1.81	ppb	#	99
44) Dibromochloromethane	6.988	129	32074	1.98	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429005.d
Acq On : 29 Apr 2014 9:09 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 29 09:22:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

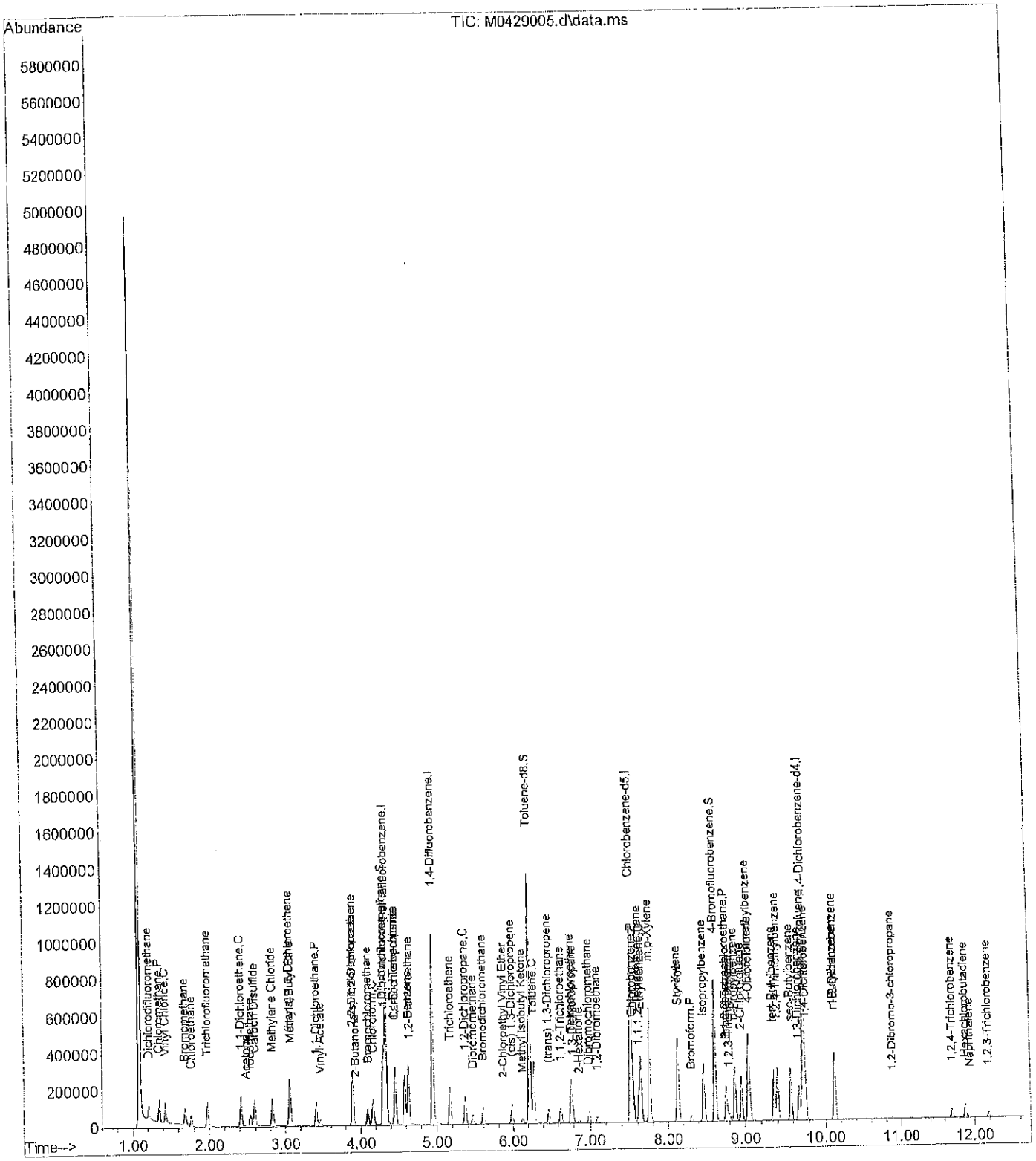
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	21685	1.97	ppb		99
46) Chlorobenzene	7.543	112	131148	1.98	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	42291	1.99	ppb		97
48) Ethylbenzene	7.646	91	243439	1.88	ppb		97
49) m,p-Xylene	7.756	91	362004	3.73	ppb		98
50) o-Xylene	8.128	91	167707	1.89	ppb		98
51) Styrene	8.140	104	132017	2.00	ppb		100
52) Bromoform	8.311	173	17626	2.14	ppb		98
53) Isopropylbenzene	8.476	105	211554	1.91	ppb		97
56) Bromobenzene	8.762	156	46158	2.01	ppb		95
57) 1,1,2,2-Tetrachloroethane	8.762	83	19587	1.76	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	15612	1.78	ppb	#	100
59) n-Propylbenzene	8.872	91	236953	1.75	ppb		97
60) 2-Chlorotoluene	8.951	126	51138	1.96	ppb		99
61) 4-Chlorotoluene	9.055	126	49917	1.95	ppb		97
62) 1,3,5-Trimethylbenzene	9.042	105	180885	1.89	ppb		99
63) tert-Butylbenzene	9.353	119	143067	1.90	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	169805	1.91	ppb		98
65) sec-Butylbenzene	9.567	105	206913	1.90	ppb		96
66) 1,3-Dichlorobenzene	9.670	146	82120	2.07	ppb		99
67) p-Isopropyltoluene	9.713	119	161149	1.88	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	83013	2.01	ppb		95
69) 1,2-Dichlorobenzene	10.115	146	60237	2.10	ppb		100
70) n-Butylbenzene	10.109	91	138894	1.78	ppb		95
71) 1,2-Dibromo-3-chloropr...	10.884	157	3092	2.44	ppb	#	93
72) 1,2,4-Trichlorobenzene	11.707	180	18839	2.38	ppb		98
73) Hexachlorobutadiene	11.883	225	17709	2.39	ppb		97
74) Naphthalene	11.944	128	18467	1.96	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	10556	2.15	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429005.d
Acq On : 29 Apr 2014 9:09 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 29 09:22:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429006.d
Acq On : 29 Apr 2014 9:32 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 29 09:45:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	549547	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	782310	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	596625	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	258777	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	200654	8.02	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.20%				
36) Toluene-d8	6.220	98	859958	9.33	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.30%				
54) 4-Bromofluorobenzene	8.616	95	259066	9.78	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.80%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	117982	2.80	ppb		99
3) Chloromethane	1.343	50	232357	3.57	ppb		99
4) Vinyl Chloride	1.428	62	214844	3.91	ppb		99
5) Bromomethane	1.684	96	108711	4.17	ppb		98
6) Chloroethane	1.769	64	116809	4.06	ppb		97
7) Trichlorofluoromethane	1.977	101	250137	4.23	ppb		99
8) 1,1-Dichloroethene	2.416	61	263311	4.17	ppb		100
9) Acetone	2.483	43	16402	3.91	ppb		93
10) Iodomethane	2.538	142	177835	4.41	ppb		95
11) Carbon Disulfide	2.592	76	430902	4.29	ppb		99
12) Methylene Chloride	2.824	49	222396	4.09	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	275905	4.34	ppb		100
14) Methyl t-Butyl Ether	3.068	73	172616	4.31	ppb		96
15) 1,1-Dichloroethane	3.409	63	304525	4.20	ppb		100
16) Vinyl Acetate	3.464	43	106199	3.47	ppb		97
17) 2,2-Dichloropropane	3.891	77	186764	4.03	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	274533	4.10	ppb		98
19) 2-Butanone	3.928	43	27465	4.13	ppb		98
20) Bromochloromethane	4.098	130	68460	4.88	ppb		86
21) Chloroform	4.165	83	239353	4.18	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	226341	4.10	ppb	#	39
24) Carbon Tetrachloride	4.458	117	218685	4.24	ppb		97
25) 1,1-Dichloropropene	4.452	75	198115	4.14	ppb		100
26) Benzene	4.629	78	539578	4.29	ppb		99
27) 1,2-Dichloroethane	4.641	62	136401	3.91	ppb		99
29) Trichloroethene	5.171	130	177853	5.15	ppb		99
30) 1,2-Dichloropropane	5.360	63	149390	4.74	ppb		99
31) Dibromomethane	5.464	174	55568	5.50	ppb		99
32) Bromodichloromethane	5.598	83	145998	4.66	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	999	0.59	ppb	#	58
34) (cis) 1,3-Dichloropropene	5.982	75	152267	4.73	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	48159	4.18	ppb		95
37) Toluene	6.275	91	585378	4.60	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	100970	4.81	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	62470	4.95	ppb		100
41) Tetrachloroethene	6.768	166	177638	5.46	ppb		99
42) 1,3-Dichloropropane	6.787	76	107420	4.89	ppb		97
43) 2-Hexanone	6.866	43	34435	4.57	ppb		99
44) Dibromochloromethane	6.988	129	83460	5.12	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429006.d
Acq On : 29 Apr 2014 9:32 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 29 09:45:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

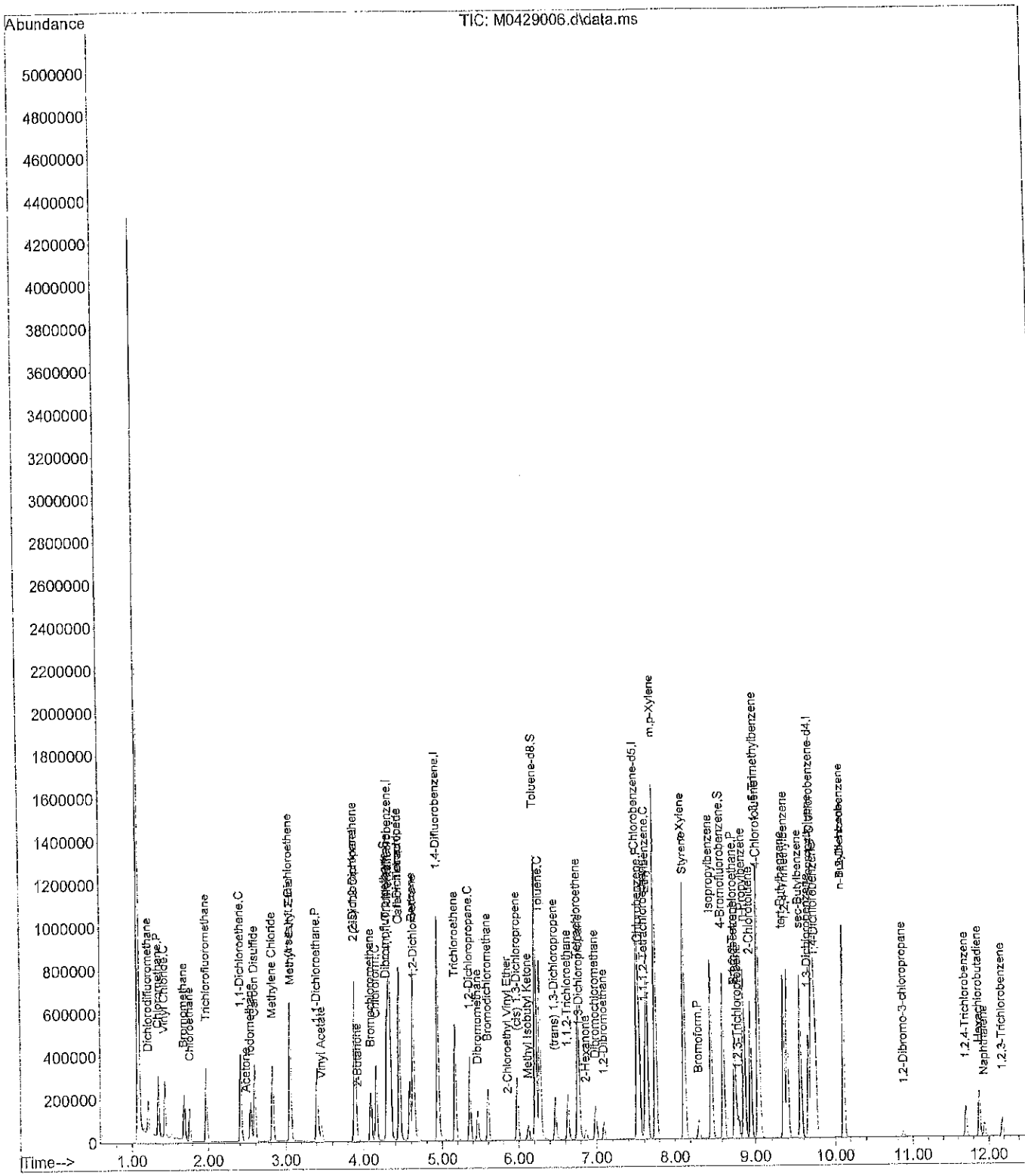
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	56729	5.14	ppb		99
46) Chlorobenzene	7.543	112	334765	5.04	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	111117	5.19	ppb		98
48) Ethylbenzene	7.646	91	633765	4.86	ppb		97
49) m,p-Xylene	7.756	91	955047	9.79	ppb		98
50) o-Xylene	8.128	91	438143	4.91	ppb		98
51) Styrene	8.140	104	343191	5.16	ppb		100
52) Bromoform	8.311	173	44563	5.38	ppb		99
53) Isopropylbenzene	8.475	105	552749	4.97	ppb		98
56) Bromobenzene	8.762	156	120845	5.16	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	50208	4.43	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	39472	4.41	ppb	#	100
59) n-Propylbenzene	8.872	91	637074	4.61	ppb		99
60) 2-Chlorotoluene	8.951	126	129033	4.85	ppb		99
61) 4-Chlorotoluene	9.055	126	128776	4.93	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	484446	4.96	ppb		97
63) tert-Butylbenzene	9.353	119	377936	4.91	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	457208	5.05	ppb		98
65) sec-Butylbenzene	9.567	105	538948	4.85	ppb		97
66) 1,3-Dichlorobenzene	9.670	146	210109	5.19	ppb		99
67) p-Isopropyltoluene	9.713	119	442294	5.06	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	219949	5.20	ppb		98
69) 1,2-Dichlorobenzene	10.115	146	156466	5.33	ppb		98
70) n-Butylbenzene	10.109	91	383573	4.80	ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	7649	5.91	ppb		94
72) 1,2,4-Trichlorobenzene	11.707	180	52456	6.48	ppb		96
73) Hexachlorobutadiene	11.877	225	48786	6.43	ppb		99
74) Naphthalene	11.944	128	54241	5.63	ppb		100
75) 1,2,3-Trichlorobenzene	12.182	180	31267	5.99	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429006.d
Acq On : 29 Apr 2014 9:32 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 29 09:45:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429007.d
Acq On : 29 Apr 2014 9:56 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 29 10:08:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	549353	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	782114	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	595948	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	255139	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	197525	7.90	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 79.00%				
36) Toluene-d8	6.220	98	847315	9.19	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 91.90%				
54) 4-Bromofluorobenzene	8.616	95	255983	9.68	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 96.80%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	230634	5.47	ppb		99
3) Chloromethane	1.343	50	460860	7.07	ppb		99
4) Vinyl Chloride	1.428	62	423675	7.72	ppb		99
5) Bromomethane	1.690	96	208994	8.01	ppb		99
6) Chloroethane	1.769	64	229356	7.97	ppb		99
7) Trichlorofluoromethane	1.977	101	496361	8.40	ppb		99
8) 1,1-Dichloroethene	2.416	61	522418	8.27	ppb		99
9) Acetone	2.483	43	32179	8.26	ppb		93
10) Iodomethane	2.538	142	379526	8.98	ppb		92
11) Carbon Disulfide	2.592	76	829606	8.26	ppb		100
12) Methylene Chloride	2.824	49	463423	8.53	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	529853	8.33	ppb		99
14) Methyl t-Butyl Ether	3.068	73	339379	8.47	ppb		97
15) 1,1-Dichloroethane	3.409	63	607358	8.38	ppb		100
16) Vinyl Acetate	3.464	43	312513	10.20	ppb		99
17) 2,2-Dichloropropane	3.897	77	361318	7.81	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	556258	8.31	ppb		99
19) 2-Butanone	3.928	43	56558	8.51	ppb		97
20) Bromochloromethane	4.098	130	131596	9.38	ppb		93
21) Chloroform	4.165	83	469225	8.19	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	440917	7.98	ppb		94
24) Carbon Tetrachloride	4.458	117	421413	8.17	ppb		98
25) 1,1-Dichloropropene	4.452	75	390205	8.15	ppb		100
26) Benzene	4.629	78	1067527	8.48	ppb		99
27) 1,2-Dichloroethane	4.641	62	273780	7.86	ppb		99
29) Trichloroethene	5.171	130	331219	9.60	ppb		100
30) 1,2-Dichloropropane	5.360	63	300097	9.53	ppb		100
31) Dibromomethane	5.464	174	107509	10.63	ppb		99
32) Bromodichloromethane	5.598	83	283751	9.06	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	2402	1.43	ppb	#	58
34) (cis) 1,3-Dichloropropene	5.982	75	305057	9.48	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	106806	9.28	ppb		99
37) Toluene	6.281	91	1151921	9.05	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	207578	9.89	ppb		100
40) 1,1,2-Trichloroethane	6.634	97	123810	9.81	ppb		99
41) Tetrachloroethene	6.769	166	346674	10.66	ppb		100
42) 1,3-Dichloropropane	6.787	76	212827	9.71	ppb		99
43) 2-Hexanone	6.866	43	70040	9.31	ppb		98
44) Dibromochloromethane	6.988	129	170523	10.46	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429007.d
Acq On : 29 Apr 2014 9:56 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 29 10:08:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

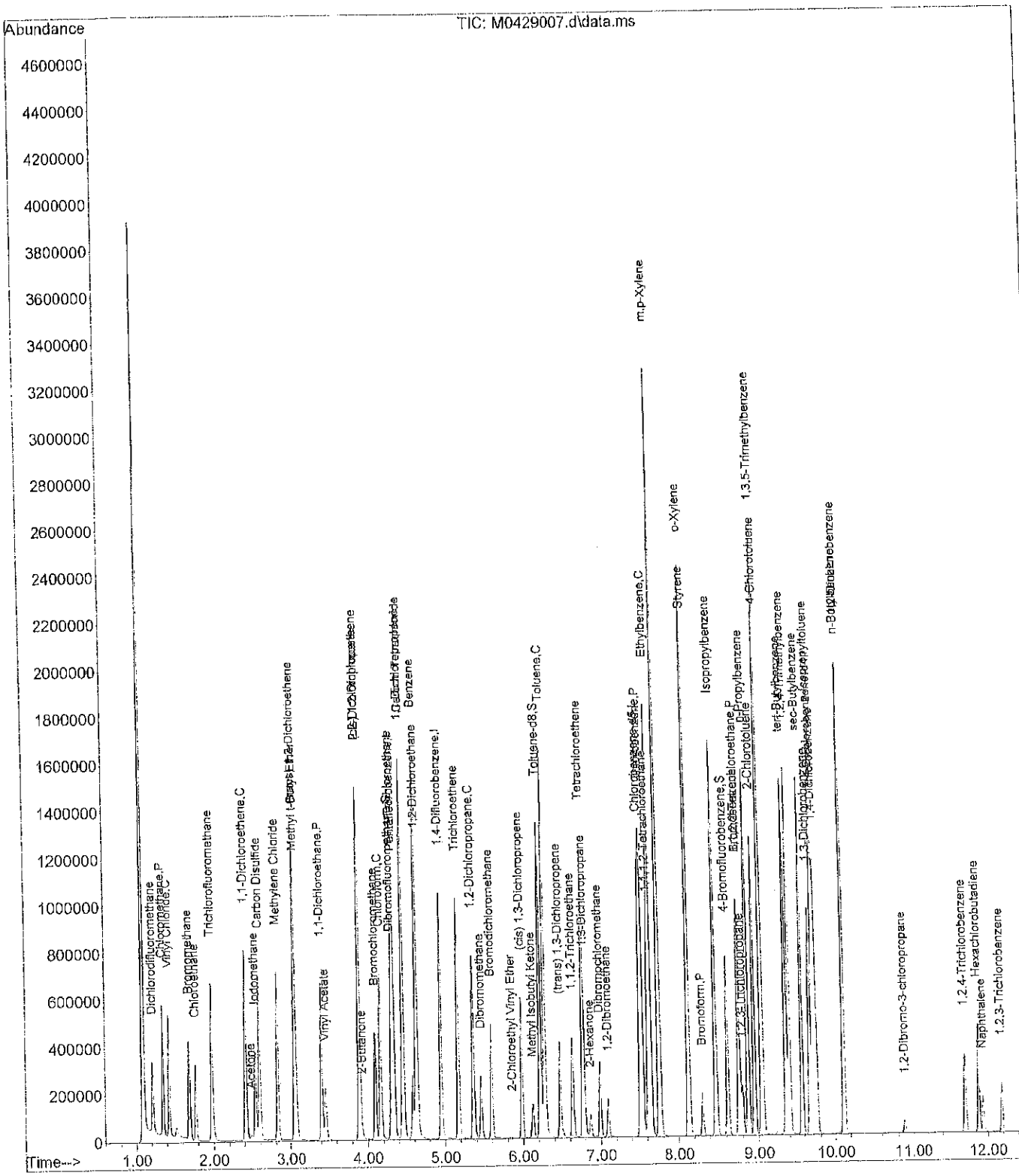
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	111691	10.13	ppb		99
46) Chlorobenzene	7.543	112	659300	9.94	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	220300	10.30	ppb		99
48) Ethylbenzene	7.646	91	1267331	9.73	ppb		98
49) m,p-Xylene	7.756	91	1915473	19.65	ppb		97
50) o-Xylene	8.128	91	881075	9.89	ppb		99
51) Styrene	8.140	104	699441	10.53	ppb		100
52) Bromoform	8.311	173	92597	11.19	ppb		98
53) Isopropylbenzene	8.475	105	1130399	10.17	ppb		98
56) Bromobenzene	8.762	156	238142	10.32	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	104614	9.36	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	81801	9.27	ppb	#	100
59) n-Propylbenzene	8.872	91	1275022	9.37	ppb		98
60) 2-Chlorotoluene	8.951	126	260706	9.94	ppb		100
61) 4-Chlorotoluene	9.055	126	252976	9.83	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	967965	10.04	ppb		97
63) tert-Butylbenzene	9.353	119	768277	10.12	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	913461	10.22	ppb		97
65) sec-Butylbenzene	9.567	105	1098176	10.03	ppb		98
66) 1,3-Dichlorobenzene	9.670	146	425294	10.67	ppb		99
67) p-Isopropyltoluene	9.713	119	898661	10.42	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	442331	10.61	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	324378	11.21	ppb		98
70) n-Butylbenzene	10.109	91	785400	9.97	ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	16255	12.74	ppb		93
72) 1,2,4-Trichlorobenzene	11.700	180	116474	14.58	ppb		99
73) Hexachlorobutadiene	11.877	225	103943	13.90	ppb		98
74) Naphthalene	11.944	128	133896	14.11	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	72277	13.88	ppb		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429007.d
Acq On : 29 Apr 2014 9:56 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 29 10:08:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429008.d
Acq On : 29 Apr 2014 10:19 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 29 10:32:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	552718	10.00 ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	785759	10.00 ppb		0.00
38) Chlorobenzene-d5	7.518	117	615720	10.00 ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	262850	10.00 ppb		0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	202150	8.03 ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.30%			
36) Toluene-d8	6.220	98	865667	9.35 ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.50%			
54) 4-Bromofluorobenzene	8.622	95	268656	9.83 ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	947155	22.33 ppb		100
3) Chloromethane	1.343	50	1468934	22.41 ppb		99
4) Vinyl Chloride	1.428	62	1325794	24.01 ppb		99
5) Bromomethane	1.690	96	598459	22.81 ppb		99
6) Chloroethane	1.769	64	657697	22.71 ppb		98
7) Trichlorofluoromethane	1.977	101	1388719	23.35 ppb		99
8) 1,1-Dichloroethene	2.416	61	1459215	22.96 ppb		100
9) Acetone	2.483	43	81673	21.77 ppb		96
10) Iodomethane	2.538	142	1121054	25.62 ppb		95
11) Carbon Disulfide	2.592	76	2478867	24.53 ppb		100
12) Methylene Chloride	2.824	49	1232571	22.55 ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	1466932	22.93 ppb		100
14) Methyl t-Butyl Ether	3.068	73	935183	23.21 ppb		96
15) 1,1-Dichloroethane	3.409	63	1644756	22.56 ppb		99
16) Vinyl Acetate	3.464	43	889593	28.86 ppb		99
17) 2,2-Dichloropropane	3.897	77	963294	20.69 ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	1487151	22.08 ppb		100
19) 2-Butanone	3.928	43	143591	21.46 ppb		96
20) Bromochloromethane	4.098	130	350306	24.83 ppb		93
21) Chloroform	4.165	83	1241787	21.55 ppb		99
22) 1,1,1-Trichloroethane	4.318	97	1201613	21.63 ppb	#	69
24) Carbon Tetrachloride	4.458	117	1136900	21.90 ppb		98
25) 1,1-Dichloropropene	4.452	75	1041187	21.62 ppb		99
26) Benzene	4.629	78	2830663	22.35 ppb		99
27) 1,2-Dichloroethane	4.641	62	717481	20.46 ppb		100
29) Trichloroethene	5.171	130	872947	25.19 ppb		99
30) 1,2-Dichloropropane	5.360	63	786996	24.88 ppb		100
31) Dibromomethane	5.464	174	290067	28.56 ppb		99
32) Bromodichloromethane	5.598	83	761406	24.21 ppb		99
33) 2-Chloroethyl Vinyl Ether	5.866	63	7535	4.45 ppb	#	73
34) (cis) 1,3-Dichloropropene	5.982	75	817771	25.30 ppb		99
35) Methyl Isobutyl Ketone	6.122	43	291347	25.19 ppb		98
37) Toluene	6.281	91	3096220	24.21 ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	547902	25.28 ppb		100
40) 1,1,2-Trichloroethane	6.634	97	324684	24.91 ppb		100
41) Tetrachloroethene	6.769	166	915863	27.26 ppb		99
42) 1,3-Dichloropropane	6.787	76	562912	24.85 ppb		98
43) 2-Hexanone	6.866	43	191050	24.57 ppb		98
44) Dibromochloromethane	6.988	129	458203	27.22 ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429008.d
Acq On : 29 Apr 2014 10:19 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 29 10:32:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

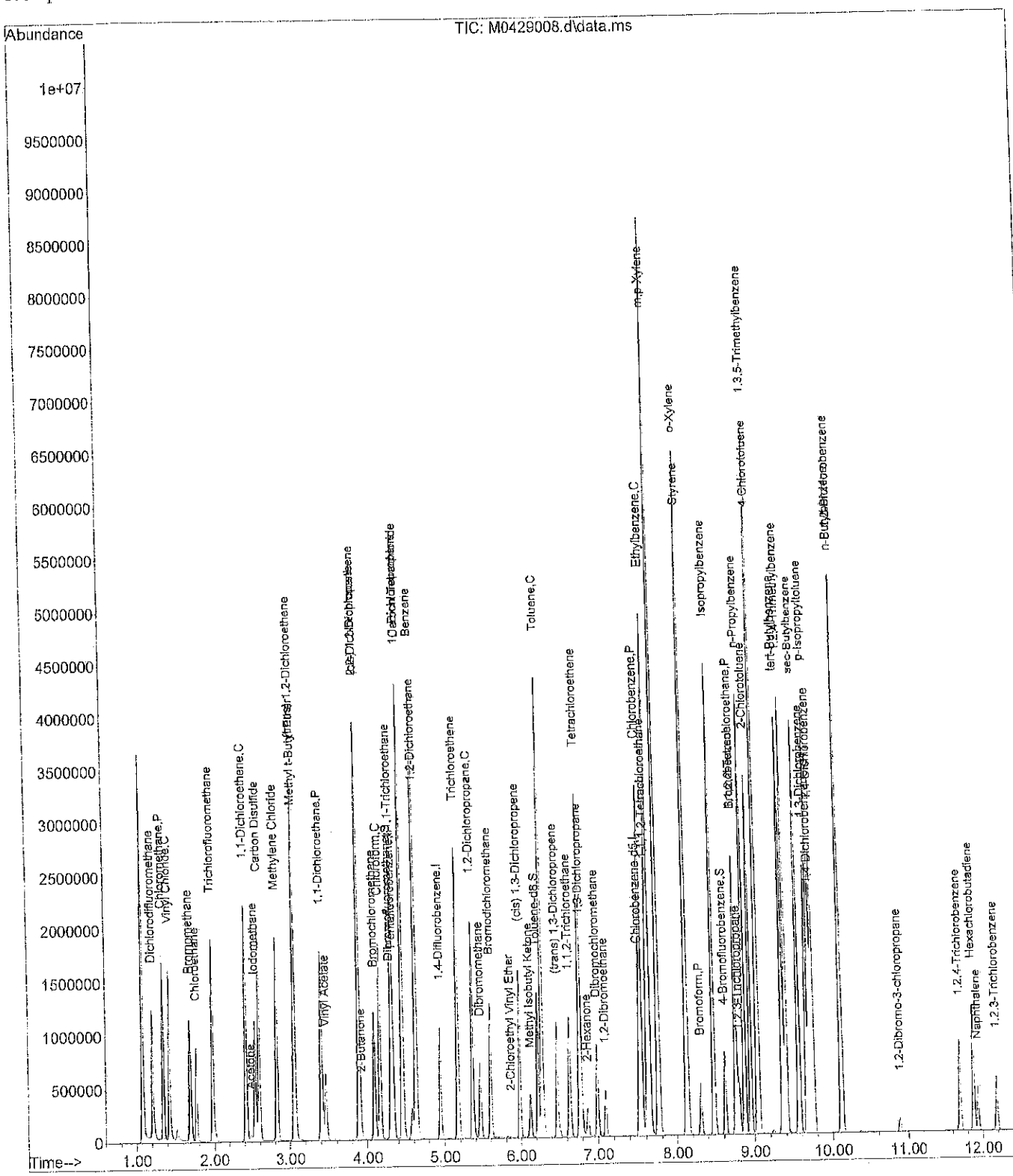
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	296547	26.03 ppb		97
46) Chlorobenzene	7.543	112	1741386	25.40 ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	589836	26.70 ppb		99
48) Ethylbenzene	7.646	91	3444537	25.59 ppb		99
49) m,p-Xylene	7.756	91	5095029	50.58 ppb		98
50) o-Xylene	8.128	91	2351048	25.55 ppb		98
51) Styrene	8.140	104	1850771	26.98 ppb		100
52) Bromoform	8.311	173	247276	28.92 ppb		98
53) Isopropylbenzene	8.475	105	3029744	26.38 ppb		99
56) Bromobenzene	8.762	156	622285	26.16 ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	275987	23.96 ppb		97
58) 1,2,3-Trichloropropane	8.799	75	207364	22.81 ppb	#	100
59) n-Propylbenzene	8.872	91	3413168	24.34 ppb		99
60) 2-Chlorotoluene	8.951	126	688982	25.50 ppb		99
61) 4-Chlorotoluene	9.055	126	671210	25.31 ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	2576139	25.94 ppb		98
63) tert-Butylbenzene	9.353	119	2040900	26.09 ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	2409428	26.18 ppb		97
65) sec-Butylbenzene	9.567	105	2888448	25.60 ppb		98
66) 1,3-Dichlorobenzene	9.670	146	1105244	26.90 ppb		99
67) p-Isopropyltoluene	9.713	119	2386697	26.86 ppb		100
68) 1,4-Dichlorobenzene	9.756	146	1148406	26.74 ppb		100
69) 1,2-Dichlorobenzene	10.115	146	823176	27.62 ppb		99
70) n-Butylbenzene	10.109	91	2088207	25.74 ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	42667	32.45 ppb		92
72) 1,2,4-Trichlorobenzene	11.707	180	309114	37.57 ppb		98
73) Hexachlorobutadiene	11.877	225	272928	35.44 ppb		100
74) Naphthalene	11.944	128	357030	36.51 ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	186996	34.66 ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429008.d
Acq On : 29 Apr 2014 10:19 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 29 10:32:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429010.d
Acq On : 29 Apr 2014 11:06 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 29 11:18:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	553064	10.00 ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	782743	10.00 ppb		0.00
38) Chlorobenzene-d5	7.518	117	607122	10.00 ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	253787	10.00 ppb		0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	199084	7.90 ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 79.00%			
36) Toluene-d8	6.220	98	864297	9.37 ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.70%			
54) 4-Bromofluorobenzene	8.622	95	257642	9.56 ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 95.60%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	1832503	43.18 ppb		100
3) Chloromethane	1.343	50	2910390	44.38 ppb		99
4) Vinyl Chloride	1.428	62	2528972	45.78 ppb		99
5) Bromomethane	1.690	96	1159039	44.15 ppb		99
6) Chloroethane	1.769	64	1222307	42.19 ppb		99
7) Trichlorofluoromethane	1.977	101	2691673	45.24 ppb		100
8) 1,1-Dichloroethene	2.416	61	2821936	44.38 ppb		99
9) Acetone	2.483	43	158053	42.67 ppb		95
10) Iodomethane	2.538	142	2156824	48.91 ppb		93
11) Carbon Disulfide	2.592	76	4793717	47.42 ppb		100
12) Methylene Chloride	2.824	49	2350957	42.98 ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	2880372	44.99 ppb		100
14) Methyl t-Butyl Ether	3.068	73	1849756	45.87 ppb		95
15) 1,1-Dichloroethane	3.409	63	3186919	43.68 ppb		99
16) Vinyl Acetate	3.464	43	1762654	57.15 ppb		99
17) 2,2-Dichloropropane	3.897	77	1840257	39.50 ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	2892369	42.93 ppb		99
19) 2-Butanone	3.922	43	270858	40.46 ppb		98
20) Bromochloromethane	4.098	130	679522	48.13 ppb		92
21) Chloroform	4.165	83	2411301	41.82 ppb		100
22) 1,1,1-Trichloroethane	4.318	97	2342818	42.14 ppb	#	60
24) Carbon Tetrachloride	4.458	117	2229569	42.92 ppb		98
25) 1,1-Dichloropropene	4.452	75	2013745	41.79 ppb		100
26) Benzene	4.629	78	5523145	43.59 ppb		99
27) 1,2-Dichloroethane	4.641	62	1393012	39.70 ppb		100
29) Trichloroethene	5.171	130	1715291	49.68 ppb		100
30) 1,2-Dichloropropane	5.360	63	1557872	49.45 ppb		100
31) Dibromomethane	5.464	174	546976	54.06 ppb		99
32) Bromodichloromethane	5.598	83	1496778	47.77 ppb		98
33) 2-Chloroethyl Vinyl Ether	5.866	63	16470	9.77 ppb	#	75
34) (cis) 1,3-Dichloropropene	5.982	75	1606427	49.89 ppb		100
35) Methyl Isobutyl Ketone	6.122	43	558598	48.48 ppb		96
37) Toluene	6.281	91	6064438	47.60 ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	1075862	50.34 ppb		99
40) 1,1,2-Trichloroethane	6.634	97	635415	49.45 ppb		99
41) Tetrachloroethene	6.769	166	1769441	53.42 ppb		99
42) 1,3-Dichloropropane	6.787	76	1091661	48.88 ppb		98
43) 2-Hexanone	6.866	43	362451	47.27 ppb		96
44) Dibromochloromethane	6.988	129	906589	54.61 ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429010.d
Acq On : 29 Apr 2014 11:06 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 29 11:18:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

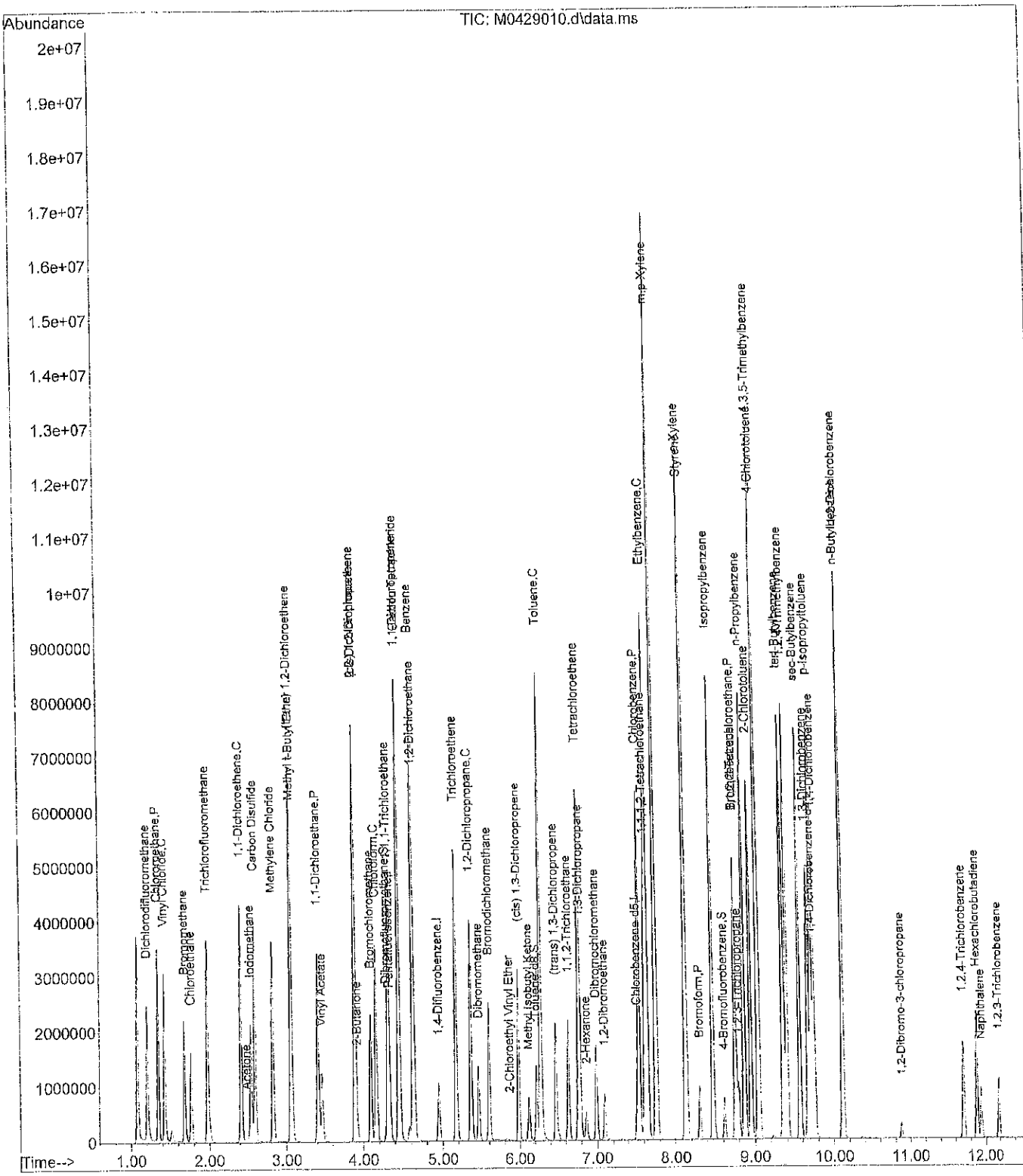
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	572300	50.95	ppb		98
46) Chlorobenzene	7.543	112	3422802	50.64	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.622	133	1165913	53.53	ppb		99
48) Ethylbenzene	7.646	91	6735262	50.74	ppb		99
49) m,p-Xylene	7.756	91	10044960	101.14	ppb		99
50) o-Xylene	8.128	91	4628655	51.01	ppb		99
51) Styrene	8.140	104	3588827	53.05	ppb		100
52) Bromoform	8.311	173	495750	58.81	ppb		99
53) Isopropylbenzene	8.475	105	5901746	52.11	ppb		99
56) Bromobenzene	8.762	156	1215842	52.95	ppb		97
57) 1,1,2,2-Tetrachloroethane	8.762	83	530951	47.74	ppb		99
58) 1,2,3-Trichloropropane	8.799	75	404272	46.05	ppb	#	100
59) n-Propylbenzene	8.872	91	6592244	48.69	ppb		99
60) 2-Chlorotoluene	8.951	126	1327794	50.90	ppb		100
61) 4-Chlorotoluene	9.055	126	1290977	50.42	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	4983662	51.98	ppb		98
63) tert-Butylbenzene	9.353	119	3996764	52.91	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	4658728	52.42	ppb		97
65) sec-Butylbenzene	9.567	105	5621191	51.59	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	2158815	54.43	ppb		100
67) p-Isopropyltoluene	9.713	119	4622966	53.88	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	2228247	53.73	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	1634296	56.80	ppb		99
70) n-Butylbenzene	10.109	91	4078715	52.07	ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	85991	67.74	ppb		94
72) 1,2,4-Trichlorobenzene	11.700	180	639708	80.53	ppb		98
73) Hexachlorobutadiene	11.883	225	526804	70.85	ppb		99
74) Naphthalene	11.944	128	781812	82.80	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	389575	74.65	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429010.d
Acq On : 29 Apr 2014 11:06 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 29 11:18:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429013.d
Acq On : 29 Apr 2014 12:16 pm
Operator :
Sample : ICV0429W1
Misc : V3-124-3
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 29 13:05:29 2014
Quant Method : C:\msdchem\1\methods\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:05:18 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	545345	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	778326	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	610930	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	264489	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	202700	10.27	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.70%			
36) Toluene-d8	6.220	98	856602	10.06	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.60%			
54) 4-Bromofluorobenzene	8.622	95	265291	10.11	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 101.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	281146	8.68	ppb	99
3) Chloromethane	1.343	50	551018	10.99	ppb	99
4) Vinyl Chloride	1.428	62	467878	10.47	ppb	98
5) Bromomethane	1.684	96	228926	9.67	ppb	100
6) Chloroethane	1.763	64	237525	9.90	ppb	99
7) Trichlorofluoromethane	1.977	101	522177	10.20	ppb	99
8) 1,1-Dichloroethene	2.410	61	587745	10.88	ppb	99
9) Acetone	2.483	43	33240	9.42	ppb	99
10) Iodomethane	2.538	142	387012	9.52	ppb	98
11) Carbon Disulfide	2.592	76	891714	10.12	ppb	100
12) Methylene Chloride	2.824	49	459078	9.77	ppb	99
13) (trans) 1,2-Dichloroet...	3.056	61	563576	10.21	ppb	99
14) Methyl t-Butyl Ether	3.068	73	382041	11.03	ppb	99
15) 1,1-Dichloroethane	3.409	63	650614	10.43	ppb	100
16) Vinyl Acetate	3.464	43	108984	3.71	ppb	99
17) 2,2-Dichloropropane	3.891	77	348113	9.26	ppb	98
18) (cis) 1,2-Dichloroethene	3.897	61	574154	10.16	ppb	99
19) 2-Butanone	3.928	43	55291	9.69	ppb	98
20) Bromochloromethane	4.098	130	142145	10.85	ppb	98
21) Chloroform	4.165	83	499137	10.62	ppb	99
22) 1,1,1-Trichloroethane	4.318	97	467662	10.32	ppb	96
24) Carbon Tetrachloride	4.458	117	447108	10.39	ppb	100
25) 1,1-Dichloropropene	4.452	75	405103	10.23	ppb	100
26) Benzene	4.629	78	1108259	10.23	ppb	99
27) 1,2-Dichloroethane	4.641	62	285491	10.50	ppb	99
29) Trichloroethene	5.171	130	389153	11.31	ppb	100
30) 1,2-Dichloropropane	5.360	63	312689	10.57	ppb	99
31) Dibromomethane	5.464	174	114318	10.71	ppb	99
32) Bromodichloromethane	5.598	83	305687	10.88	ppb	99
33) 2-Chloroethyl Vinyl Ether	5.866	63	2166	8.18	ppb #	100
34) (cis) 1,3-Dichloropropene	5.982	75	317587	10.78	ppb	99
35) Methyl Isobutyl Ketone	6.122	43	107486	10.32	ppb	98
37) Toluene	6.281	91	1199856	10.17	ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	215501	10.60	ppb	99
40) 1,1,2-Trichloroethane	6.634	97	131426	10.43	ppb	98
41) Tetrachloroethene	6.768	166	361271	9.99	ppb	100
42) 1,3-Dichloropropane	6.787	76	226618	10.42	ppb	99
43) 2-Hexanone	6.866	43	71707	10.33	ppb	95
44) Dibromochloromethane	6.988	129	186776	10.91	ppb	98

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429013.d
Acq On : 29 Apr 2014 12:16 pm
Operator :
Sample : ICV0429W1
Misc : V3-124-3
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 29 13:05:29 2014
Quant Method : C:\msdchem\1\methods\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:05:18 2014
Response via : Initial Calibration

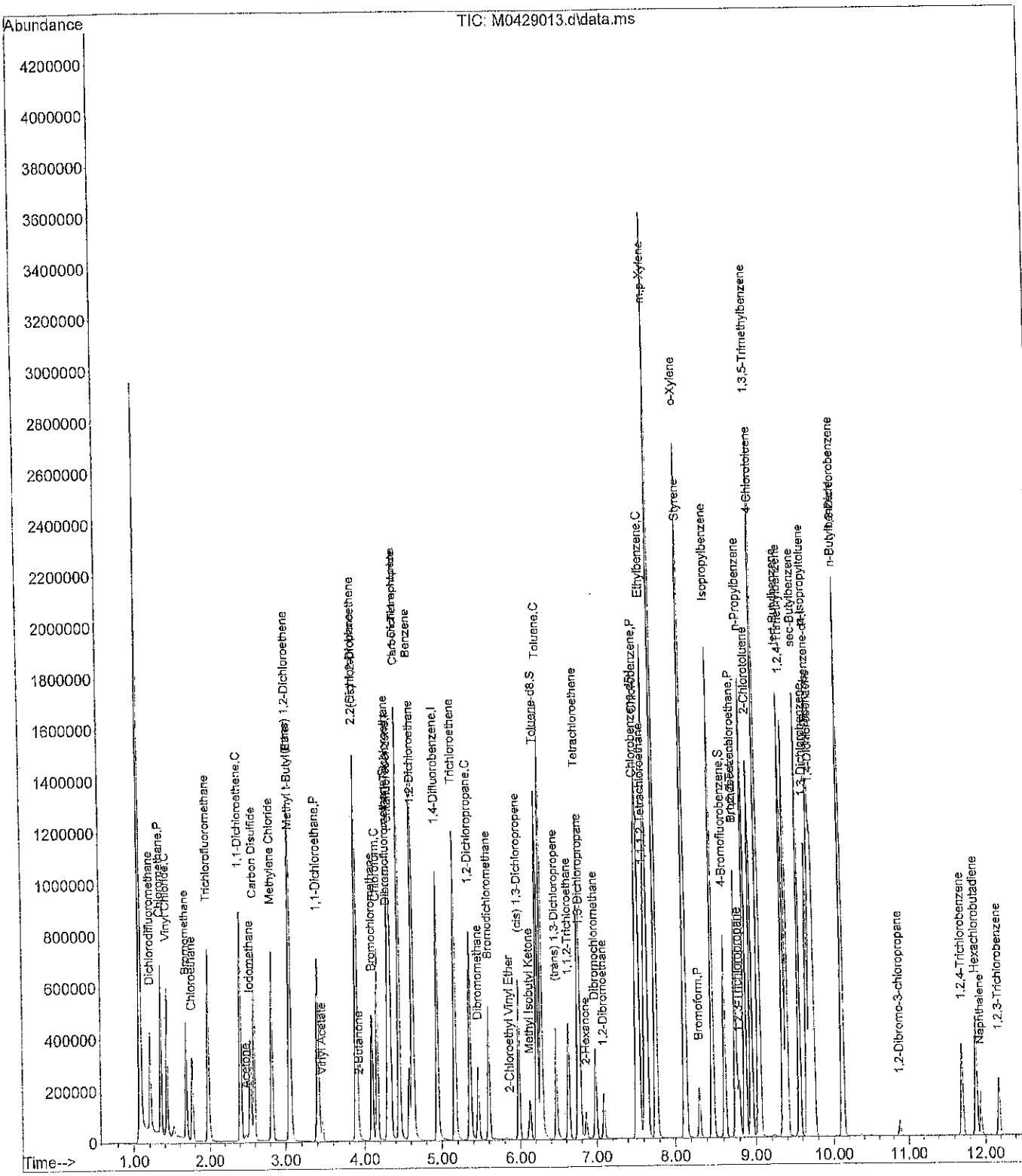
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	121208	10.77	ppb		100
46) Chlorobenzene	7.543	112	754958	11.11	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	232738	10.46	ppb		100
48) Ethylbenzene	7.646	91	1325946	10.21	ppb		100
49) m,p-Xylene	7.756	91	2074583	21.46	ppb		100
50) o-Xylene	8.128	91	1012622	11.44	ppb		100
51) Styrene	8.140	104	733805	10.77	ppb		100
52) Bromoform	8.311	173	97875	10.76	ppb		98
53) Isopropylbenzene	8.475	105	1298630	11.56	ppb		99
56) Bromobenzene	8.762	156	258343	10.30	ppb		100
57) 1,1,2,2-Tetrachloroethane	8.762	83	94716	8.97	ppb		100
58) 1,2,3-Trichloropropane	8.799	75	87991	10.35	ppb	#	100
59) n-Propylbenzene	8.872	91	1443555	10.86	ppb		99
60) 2-Chlorotoluene	8.951	126	303283	11.29	ppb		98
61) 4-Chlorotoluene	9.055	126	295001	11.06	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	1002765	10.09	ppb		99
63) tert-Butylbenzene	9.353	119	878287	11.14	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	943689	10.22	ppb		99
65) sec-Butylbenzene	9.567	105	1240305	11.14	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	499116	11.43	ppb		98
67) p-Isopropyltoluene	9.713	119	993346	11.04	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	457850	10.10	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	375678	11.71	ppb		99
70) n-Butylbenzene	10.109	91	796584	10.01	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	17314	10.49	ppb		95
72) 1,2,4-Trichlorobenzene	11.707	180	129758	10.25	ppb		98
73) Hexachlorobutadiene	11.883	225	102981	10.13	ppb		97
74) Naphthalene	11.944	128	143524	9.83	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	78512	10.23	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429013.d
Acq On : 29 Apr 2014 12:16 pm
Operator :
Sample : ICV0429W1
Misc : V3-124-3
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 29 13:05:29 2014
Quant Method : C:\msdchem\1\methods\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:05:18 2014
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430002.d
Acq On : 30 Apr 2014 7:30 am
Operator :
Sample : CCV0430W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 30 07:43:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	10.000	10.000	0.0	94	0.00
2		Dichlorodifluoromethane	10.000	10.848	-8.5	148	0.00
3	P	Chloromethane	10.000	11.173	-11.7	115	0.00
4	C	Vinyl Chloride	10.000	11.262	-12.6#	112	0.00
5		Bromomethane	10.000	9.900	1.0	106	0.00
6		Chloroethane	10.000	10.644	-6.4	105	0.00
7		Trichlorofluoromethane	10.000	10.814	-8.1	105	0.00
8	C	1,1-Dichloroethene	10.000	11.105	-11.1#	108	0.00
9		Acetone	10.000	7.124	28.8#	74	0.00
10		Iodomethane	10.000	9.926	0.7	101	0.00
11		Carbon Disulfide	10.000	11.413	-14.1	114	0.00
12		Methylene Chloride	10.000	9.455	5.4	91	0.00
13		(trans) 1,2-Dichloroethene	10.000	10.821	-8.2	106	0.00
14		Methyl t-Butyl Ether	10.000	7.863	21.4#	76	0.00
15	P	1,1-Dichloroethane	10.000	10.374	-3.7	101	0.00
16		Vinyl Acetate	10.000	8.174	18.3	80	0.00
17		2,2-Dichloropropane	10.000	11.312	-13.1	111	0.00
18		(cis) 1,2-Dichloroethene	10.000	10.186	-1.9	98	0.00
19		2-Butanone	10.000	7.866	21.3#	75	0.00
20		Bromochloromethane	10.000	9.223	7.8	87	0.00
21	C	Chloroform	10.000	9.989	0.1#	94	0.00
22		1,1,1-Trichloroethane	10.000	10.956	-9.6	106	0.00
23	S	Dibromofluoromethane	10.000	9.101	9.0	86	0.00
24		Carbon Tetrachloride	10.000	11.034	-10.3	106	0.00
25		1,1-Dichloropropene	10.000	10.720	-7.2	103	0.00
26		Benzene	10.000	10.332	-3.3	99	0.00
27		1,2-Dichloroethane	10.000	9.179	8.2	86	0.00
28	I	1,4-Difluorobenzene	10.000	10.000	0.0	91	0.00
29		Trichloroethene	10.000	10.570	-5.7	101	0.00
30	C	1,2-Dichloropropane	10.000	10.004	-0.0#	90	0.00
31		Dibromomethane	10.000	8.857	11.4	81	0.00
32		Bromodichloromethane	10.000	9.756	2.4	89	0.00
33		2-Chloroethyl Vinyl Ether	10.000	6.836	31.6#	66	0.00
34		(cis) 1,3-Dichloropropene	10.000	9.665	3.4	86	0.00
35		Methyl Isobutyl Ketone	10.000	7.706	22.9#	69	0.00
36	S	Toluene-d8	10.000	10.114	-1.1	93	0.00
37	C	Toluene	10.000	10.608	-6.1#	100	0.00
38	I	Chlorobenzene-d5	10.000	10.000	0.0	85	0.00
39		(trans) 1,3-Dichloropropene	10.000	9.912	0.9	80	0.00
40		1,1,2-Trichloroethane	10.000	9.870	1.3	83	0.00
41		Tetrachloroethene	10.000	11.951	-19.5	103	0.00
42		1,3-Dichloropropane	10.000	9.677	3.2	82	0.00
43		2-Hexanone	10.000	8.160	18.4	67	0.00
44		Dibromochloromethane	10.000	9.860	1.4	82	0.00
45		1,2-Dibromoethane	10.000	9.535	4.6	80	0.00
46	P	Chlorobenzene	10.000	10.792	-7.9	92	0.00
47		1,1,1,2-Tetrachloroethane	10.000	10.455	-4.6	87	0.00
48	C	Ethylbenzene	10.000	11.962	-19.6#	101	0.00

Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430002.d
Acq On : 30 Apr 2014 7:30 am
Operator :
Sample : CCV0430W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 30 07:43:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49		m,p-Xylene	20.000	23.734	-18.7	99	0.00
50		o-Xylene	10.000	11.345	-13.5	94	0.00
51		Styrene	10.000	11.121	-11.2	90	0.00
52	P	Bromoform	10.000	9.501	5.0	77	0.00
53		Isopropylbenzene	10.000	12.441	-24.4#	102	0.00
54	S	4-Bromofluorobenzene	10.000	9.512	4.9	81	0.00
55	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	79	0.00
56		Bromobenzene	10.000	10.584	-5.8	85	0.00
57	P	1,1,2,2-Tetrachloroethane	10.000	9.429	5.7	73	0.00
58		1,2,3-Trichloropropane	10.000	9.185	8.1	73	0.00
59		n-Propylbenzene	10.000	12.752	-27.5#	101	0.00
60		2-Chlorotoluene	10.000	11.840	-18.4	93	0.00
61		4-Chlorotoluene	10.000	11.426	-14.3	92	0.00
62		1,3,5-Trimethylbenzene	10.000	12.268	-22.7#	96	0.00
63		tert-Butylbenzene	10.000	12.882	-28.8#	101	0.00
64		1,2,4-Trimethylbenzene	10.000	11.965	-19.6	92	0.00
65		sec-Butylbenzene	10.000	13.179	-31.8#	102	0.00
66		1,3-Dichlorobenzene	10.000	10.774	-7.7	84	0.00
67		p-Isopropyltoluene	10.000	12.842	-28.4#	98	0.00
68		1,4-Dichlorobenzene	10.000	10.570	-5.7	83	0.00
69		1,2-Dichlorobenzene	10.000	10.411	-4.1	78	0.00
70		n-Butylbenzene	10.000	12.435	-24.4#	96	0.00
71		1,2-Dibromo-3-chloropropane	10.000	8.352	16.5	65	0.00
72		1,2,4-Trichlorobenzene	10.000	6.782	32.2#	56	0.00
73		Hexachlorobutadiene	10.000	9.472	5.3	71	0.00
74		Naphthalene	10.000	5.763	42.4#	45	0.00
75		1,2,3-Trichlorobenzene	10.000	6.043	39.6#	48	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430002.d
Acq On : 30 Apr 2014 7:30 am
Operator :
Sample : CCV0430W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 30 07:43:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	514813	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	713570	10.00	ppb		0.00
38) Chlorobenzene-d5	7.519	117	505358	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.732	152	201441	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	169527	9.10	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 91.00%				
36) Toluene-d8	6.220	98	789819	10.11	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 101.10%				
54) 4-Bromofluorobenzene	8.616	95	206508	9.51	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 95.10%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	341059	10.85	ppb		99
3) Chloromethane	1.343	50	528976	11.17	ppb		100
4) Vinyl Chloride	1.428	62	475278	11.26	ppb		98
5) Bromomethane	1.690	96	221178	9.90	ppb		100
6) Chloroethane	1.770	64	240974	10.64	ppb		99
7) Trichlorofluoromethane	1.983	101	522528	10.81	ppb		99
8) 1,1-Dichloroethene	2.416	61	566097	11.10	ppb		99
9) Acetone	2.483	43	23721	7.12	ppb		100
10) Iodomethane	2.538	142	381852	9.93	ppb		98
11) Carbon Disulfide	2.593	76	949447	11.41	ppb		99
12) Methylene Chloride	2.824	49	419465	9.45	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	564036	10.82	ppb		98
14) Methyl t-Butyl Ether	3.062	73	257125	7.86	ppb		98
15) 1,1-Dichloroethane	3.410	63	610715	10.37	ppb		100
16) Vinyl Acetate	3.458	43	248829	8.17	ppb		100
17) 2,2-Dichloropropane	3.891	77	401333	11.31	ppb		98
18) (cis) 1,2-Dichloroethene	3.897	61	543183	10.19	ppb		99
19) 2-Butanone	3.922	43	42350	7.87	ppb		99
20) Bromochloromethane	4.098	130	114113	9.22	ppb		99
21) Chloroform	4.166	83	443031	9.99	ppb		100
22) 1,1,1-Trichloroethane	4.318	97	468512	10.96	ppb		93
24) Carbon Tetrachloride	4.458	117	448338	11.03	ppb		100
25) 1,1-Dichloropropene	4.452	75	400881	10.72	ppb		99
26) Benzene	4.629	78	1056145	10.33	ppb		100
27) 1,2-Dichloroethane	4.641	62	235532	9.18	ppb		99
29) Trichloroethene	5.171	130	333403	10.57	ppb		98
30) 1,2-Dichloropropane	5.360	63	271194	10.00	ppb		100
31) Dibromomethane	5.464	174	86704	8.86	ppb		98
32) Bromodichloromethane	5.598	83	251367	9.76	ppb		99
33) 2-Chloroethyl Vinyl Ether	5.866	63	1583	6.84	ppb	#	100
34) (cis) 1,3-Dichloropropene	5.982	75	261150	9.67	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	73609	7.71	ppb		98
37) Toluene	6.275	91	1147260	10.61	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	166669	9.91	ppb		98
40) 1,1,2-Trichloroethane	6.635	97	102921	9.87	ppb		98
41) Tetrachloroethene	6.769	166	357507	11.95	ppb		100
42) 1,3-Dichloropropane	6.787	76	174025	9.68	ppb		100
43) 2-Hexanone	6.866	43	46836	8.16	ppb	#	99
44) Dibromochloromethane	6.988	129	139684	9.86	ppb		98

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430002.d
Acq On : 30 Apr 2014 7:30 am
Operator :
Sample : CCV0430W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 30 07:43:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

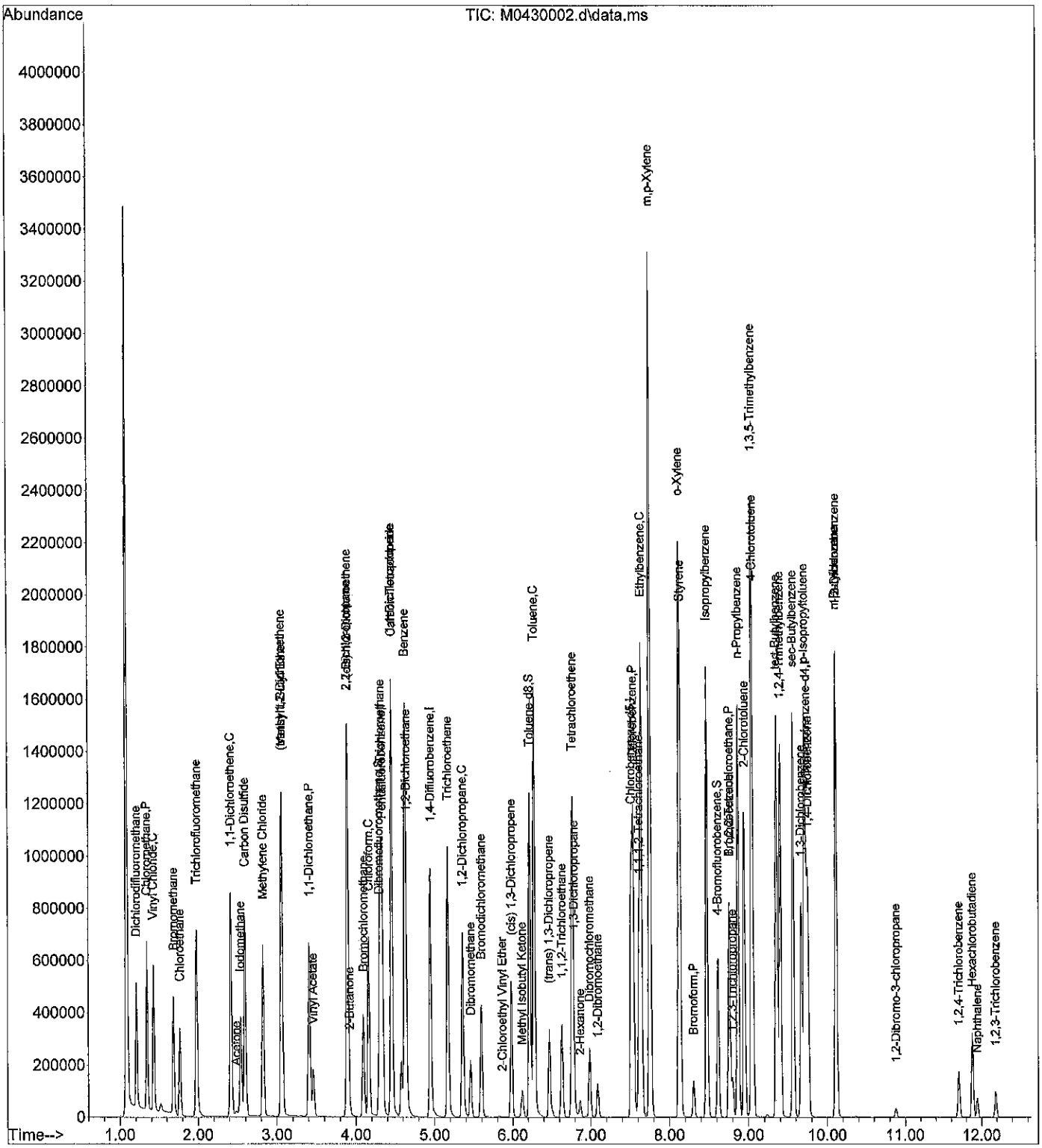
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	88800	9.53	ppb		100
46) Chlorobenzene	7.543	112	606856	10.79	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	192476	10.45	ppb		99
48) Ethylbenzene	7.647	91	1285015	11.96	ppb		100
49) m,p-Xylene	7.756	91	1897541	23.73	ppb		100
50) o-Xylene	8.128	91	830481	11.35	ppb		100
51) Styrene	8.140	104	626887	11.12	ppb		100
52) Bromoform	8.311	173	71499	9.50	ppb		98
53) Isopropylbenzene	8.476	105	1155926	12.44	ppb		99
56) Bromobenzene	8.762	156	202269	10.58	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	75847	9.43	ppb		100
58) 1,2,3-Trichloropropane	8.799	75	59457	9.18	ppb	#	100
59) n-Propylbenzene	8.872	91	1291254	12.75	ppb		100
60) 2-Chlorotoluene	8.951	126	242165	11.84	ppb		98
61) 4-Chlorotoluene	9.055	126	232026	11.43	ppb		99
62) 1,3,5-Trimethylbenzene	9.043	105	928858	12.27	ppb		99
63) tert-Butylbenzene	9.354	119	773529	12.88	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	841190	11.97	ppb		99
65) sec-Butylbenzene	9.567	105	1117087	13.18	ppb		100
66) 1,3-Dichlorobenzene	9.671	146	358399	10.77	ppb		99
67) p-Isopropyltoluene	9.713	119	880055	12.84	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	364936	10.57	ppb		99
69) 1,2-Dichlorobenzene	10.116	146	254428	10.41	ppb		98
70) n-Butylbenzene	10.110	91	753591	12.43	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	10494	8.35	ppb		99
72) 1,2,4-Trichlorobenzene	11.701	180	64866	6.78	ppb		96
73) Hexachlorobutadiene	11.877	225	73342	9.47	ppb		99
74) Naphthalene	11.945	128	60612	5.76	ppb		98
75) 1,2,3-Trichlorobenzene	12.182	180	34901	6.04	ppb		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430002.d
Acq On : 30 Apr 2014 7:30 am
Operator :
Sample : CCV0430W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 30 07:43:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501002.d
Acq On : 1 May 2014 7:56 am
Operator :
Sample : CCV0501W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 01 08:09:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	10.000	10.000	0.0	95	0.00
2		Dichlorodifluoromethane	10.000	9.819	1.8	134	0.00
3	P	Chloromethane	10.000	11.734	-17.3	122	0.00
4	C	Vinyl Chloride	10.000	10.470	-4.7#	106	0.00
5		Bromomethane	10.000	8.993	10.1	98	0.00
6		Chloroethane	10.000	9.874	1.3	99	0.00
7		Trichlorofluoromethane	10.000	10.162	-1.6	101	0.00
8	C	1,1-Dichloroethene	10.000	10.339	-3.4#	102	0.00
9		Acetone	10.000	6.997	30.0#	74	0.00
10		Iodomethane	10.000	6.523	34.8#	65	0.00
11		Carbon Disulfide	10.000	10.610	-6.1	108	0.00
12		Methylene Chloride	10.000	9.045	9.6	88	0.00
13		(trans) 1,2-Dichloroethene	10.000	10.411	-4.1	104	0.00
14		Methyl t-Butyl Ether	10.000	8.246	17.5	81	0.00
15	P	1,1-Dichloroethane	10.000	9.928	0.7	98	0.00
16		Vinyl Acetate	10.000	8.835	11.6	88	0.00
17		2,2-Dichloropropane	10.000	10.651	-6.5	106	0.00
18		(cis) 1,2-Dichloroethene	10.000	9.672	3.3	94	0.00
19		2-Butanone	10.000	8.079	19.2	78	0.00
20		Bromochloromethane	10.000	9.086	9.1	87	0.00
21	C	Chloroform	10.000	9.576	4.2#	92	0.00
22		1,1,1-Trichloroethane	10.000	10.170	-1.7	100	0.00
23	S	Dibromofluoromethane	10.000	8.441	15.6	81	0.00
24		Carbon Tetrachloride	10.000	10.375	-3.8	102	0.00
25		1,1-Dichloropropene	10.000	10.066	-0.7	98	0.00
26		Benzene	10.000	9.820	1.8	96	0.00
27		1,2-Dichloroethane	10.000	8.924	10.8	85	0.00
28	I	1,4-Difluorobenzene	10.000	10.000	0.0	92	0.00
29		Trichloroethene	10.000	10.056	-0.6	97	0.00
30	C	1,2-Dichloropropane	10.000	9.784	2.2#	89	0.00
31		Dibromomethane	10.000	9.211	7.9	85	0.00
32		Bromodichloromethane	10.000	9.652	3.5	89	0.00
33		2-Chloroethyl Vinyl Ether	10.000	10.266	-2.7	110	0.00
34		(cis) 1,3-Dichloropropene	10.000	9.919	0.8	89	0.00
35		Methyl Isobutyl Ketone	10.000	8.061	19.4	73	0.00
36	S	Toluene-d8	10.000	9.980	0.2	93	0.00
37	C	Toluene	10.000	10.156	-1.6#	96	0.00
38	I	Chlorobenzene-d5	10.000	10.000	0.0	88	0.00
39		(trans) 1,3-Dichloropropene	10.000	9.995	0.1	84	0.00
40		1,1,2-Trichloroethane	10.000	9.475	5.3	83	0.00
41		Tetrachloroethene	10.000	11.054	-10.5	99	0.00
42		1,3-Dichloropropane	10.000	9.484	5.2	83	0.00
43		2-Hexanone	10.000	8.167	18.3	70	0.00
44		Dibromochloromethane	10.000	9.809	1.9	85	0.00
45		1,2-Dibromoethane	10.000	9.520	4.8	83	0.00
46	P	Chlorobenzene	10.000	10.248	-2.5	91	0.00
47		1,1,1,2-Tetrachloroethane	10.000	10.314	-3.1	90	0.00
48	C	Ethylbenzene	10.000	11.096	-11.0#	98	0.00

Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501002.d
Acq On : 1 May 2014 7:56 am
Operator :
Sample : CCV0501W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 01 08:09:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49		m,p-Xylene	20.000	22.180	-10.9	96	0.00
50		o-Xylene	10.000	10.697	-7.0	93	0.00
51		Styrene	10.000	10.564	-5.6	89	0.00
52	P	Bromoform	10.000	9.665	3.4	82	0.00
53		Isopropylbenzene	10.000	11.391	-13.9	97	0.00
54	S	4-Bromofluorobenzene	10.000	9.703	3.0	86	0.00
55	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	80	0.00
56		Bromobenzene	10.000	10.320	-3.2	84	0.00
57	P	1,1,2,2-Tetrachloroethane	10.000	10.858	-8.6	85	0.00
58		1,2,3-Trichloropropane	10.000	9.410	5.9	76	0.00
59		n-Propylbenzene	10.000	11.932	-19.3	96	0.00
60		2-Chlorotoluene	10.000	11.441	-14.4	91	0.00
61		4-Chlorotoluene	10.000	11.141	-11.4	91	0.00
62		1,3,5-Trimethylbenzene	10.000	11.762	-17.6	93	0.00
63		tert-Butylbenzene	10.000	11.968	-19.7	95	0.00
64		1,2,4-Trimethylbenzene	10.000	11.394	-13.9	89	0.00
65		sec-Butylbenzene	10.000	12.133	-21.3#	95	0.00
66		1,3-Dichlorobenzene	10.000	10.364	-3.6	82	0.00
67		p-Isopropyltoluene	10.000	12.021	-20.2#	93	0.00
68		1,4-Dichlorobenzene	10.000	10.319	-3.2	82	0.00
69		1,2-Dichlorobenzene	10.000	10.049	-0.5	77	0.00
70		n-Butylbenzene	10.000	11.781	-17.8	92	0.00
71		1,2-Dibromo-3-chloropropane	10.000	8.629	13.7	68	0.00
72		1,2,4-Trichlorobenzene	10.000	7.389	26.1#	62	0.00
73		Hexachlorobutadiene	10.000	9.512	4.9	72	0.00
74		Naphthalene	10.000	6.453	35.5#	52	0.00
75		1,2,3-Trichlorobenzene	10.000	6.769	32.3#	55	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501002.d
Acq On : 1 May 2014 7:56 am
Operator :
Sample : CCV0501W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 01 08:09:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	522984	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	721879	10.00	ppb		0.00
38) Chlorobenzene-d5	7.519	117	525996	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.732	152	204660	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	159730	8.44	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.40%				
36) Toluene-d8	6.220	98	788444	9.98	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.80%				
54) 4-Bromofluorobenzene	8.616	95	219253	9.70	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	309985	9.82	ppb		98
3) Chloromethane	1.343	50	564380	11.73	ppb		99
4) Vinyl Chloride	1.428	62	448864	10.47	ppb		98
5) Bromomethane	1.690	96	204102	8.99	ppb		99
6) Chloroethane	1.770	64	227086	9.87	ppb		98
7) Trichlorofluoromethane	1.977	101	498848	10.16	ppb		99
8) 1,1-Dichloroethene	2.416	61	535446	10.34	ppb		99
9) Acetone	2.483	43	23669	7.00	ppb		96
10) Iodomethane	2.538	142	247029	6.52	ppb		97
11) Carbon Disulfide	2.593	76	896641	10.61	ppb		100
12) Methylene Chloride	2.824	49	407640	9.04	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	551252	10.41	ppb		99
14) Methyl t-Butyl Ether	3.062	73	273933	8.25	ppb		99
15) 1,1-Dichloroethane	3.410	63	593736	9.93	ppb		100
16) Vinyl Acetate	3.458	43	274715	8.83	ppb		100
17) 2,2-Dichloropropane	3.891	77	383885	10.65	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	523934	9.67	ppb		100
19) 2-Butanone	3.922	43	44187	8.08	ppb		96
20) Bromochloromethane	4.098	130	114202	9.09	ppb		99
21) Chloroform	4.166	83	431441	9.58	ppb		100
22) 1,1,1-Trichloroethane	4.318	97	441784	10.17	ppb		97
24) Carbon Tetrachloride	4.452	117	428217	10.37	ppb		99
25) 1,1-Dichloropropene	4.452	75	382417	10.07	ppb		100
26) Benzene	4.629	78	1019696	9.82	ppb		100
27) 1,2-Dichloroethane	4.641	62	232628	8.92	ppb		99
29) Trichloroethene	5.171	130	320889	10.06	ppb		100
30) 1,2-Dichloropropane	5.360	63	268318	9.78	ppb		100
31) Dibromomethane	5.464	174	91214	9.21	ppb		98
32) Bromodichloromethane	5.598	83	251583	9.65	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.866	63	2639	10.27	ppb	#	100
34) (cis) 1,3-Dichloropropene	5.982	75	271134	9.92	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	77894	8.06	ppb		99
37) Toluene	6.275	91	1111185	10.16	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	174927	9.99	ppb		99
40) 1,1,2-Trichloroethane	6.635	97	102838	9.48	ppb		99
41) Tetrachloroethene	6.769	166	344196	11.05	ppb		99
42) 1,3-Dichloropropane	6.787	76	177518	9.48	ppb		100
43) 2-Hexanone	6.866	43	48788	8.17	ppb		95
44) Dibromochloromethane	6.988	129	144645	9.81	ppb		98

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501002.d
Acq On : 1 May 2014 7:56 am
Operator :
Sample : CCV0501W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

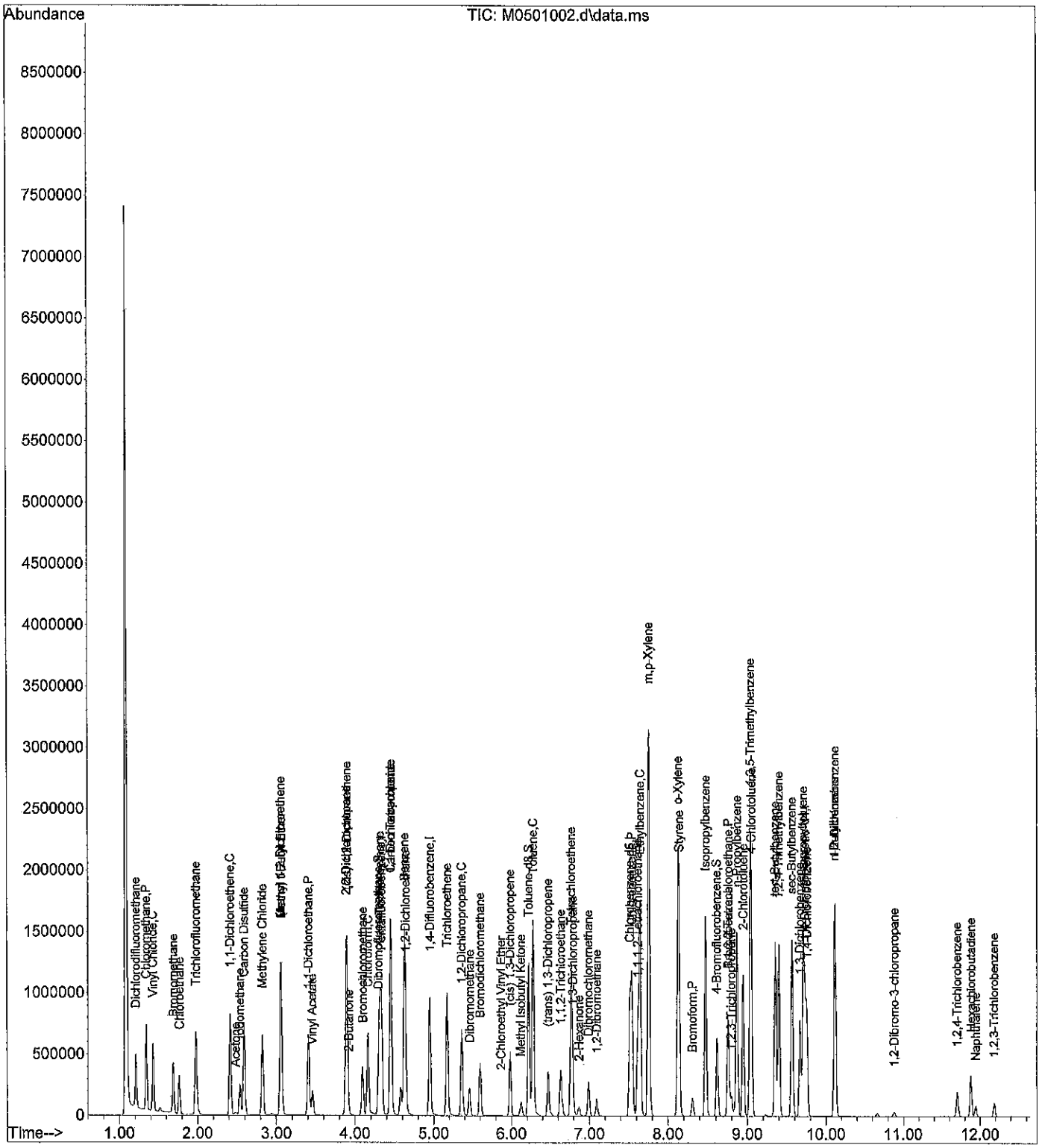
Quant Time: May 01 08:09:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	92283	9.52	ppb		98
46) Chlorobenzene	7.543	112	599761	10.25	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	197633	10.31	ppb		98
48) Ethylbenzene	7.647	91	1240646	11.10	ppb		99
49) m,p-Xylene	7.756	91	1845675	22.18	ppb		99
50) o-Xylene	8.128	91	815036	10.70	ppb		100
51) Styrene	8.140	104	619769	10.56	ppb		100
52) Bromoform	8.311	173	75706	9.67	ppb		98
53) Isopropylbenzene	8.476	105	1101590	11.39	ppb		100
56) Bromobenzene	8.762	156	200388	10.32	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	88743	10.86	ppb		99
58) 1,2,3-Trichloropropane	8.799	75	61887	9.41	ppb	#	100
59) n-Propylbenzene	8.872	91	1227584	11.93	ppb		100
60) 2-Chlorotoluene	8.951	126	237739	11.44	ppb		100
61) 4-Chlorotoluene	9.055	126	229867	11.14	ppb		99
62) 1,3,5-Trimethylbenzene	9.043	105	904819	11.76	ppb		100
63) tert-Butylbenzene	9.354	119	730113	11.97	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	813818	11.39	ppb		99
65) sec-Butylbenzene	9.567	105	1044852	12.13	ppb		99
66) 1,3-Dichlorobenzene	9.671	146	350265	10.36	ppb		99
67) p-Isopropyltoluene	9.713	119	836996	12.02	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	361958	10.32	ppb		100
69) 1,2-Dichlorobenzene	10.116	146	249509	10.05	ppb		99
70) n-Butylbenzene	10.110	91	725411	11.78	ppb		100
71) 1,2-Dibromo-3-chloropr...	10.884	157	11016	8.63	ppb		99
72) 1,2,4-Trichlorobenzene	11.701	180	71933	7.39	ppb		98
73) Hexachlorobutadiene	11.884	225	74829	9.51	ppb		98
74) Naphthalene	11.945	128	69978	6.45	ppb		96
75) 1,2,3-Trichlorobenzene	12.182	180	39844	6.77	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501002.d
Acq On : 1 May 2014 7:56 am
Operator :
Sample : CCV0501W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

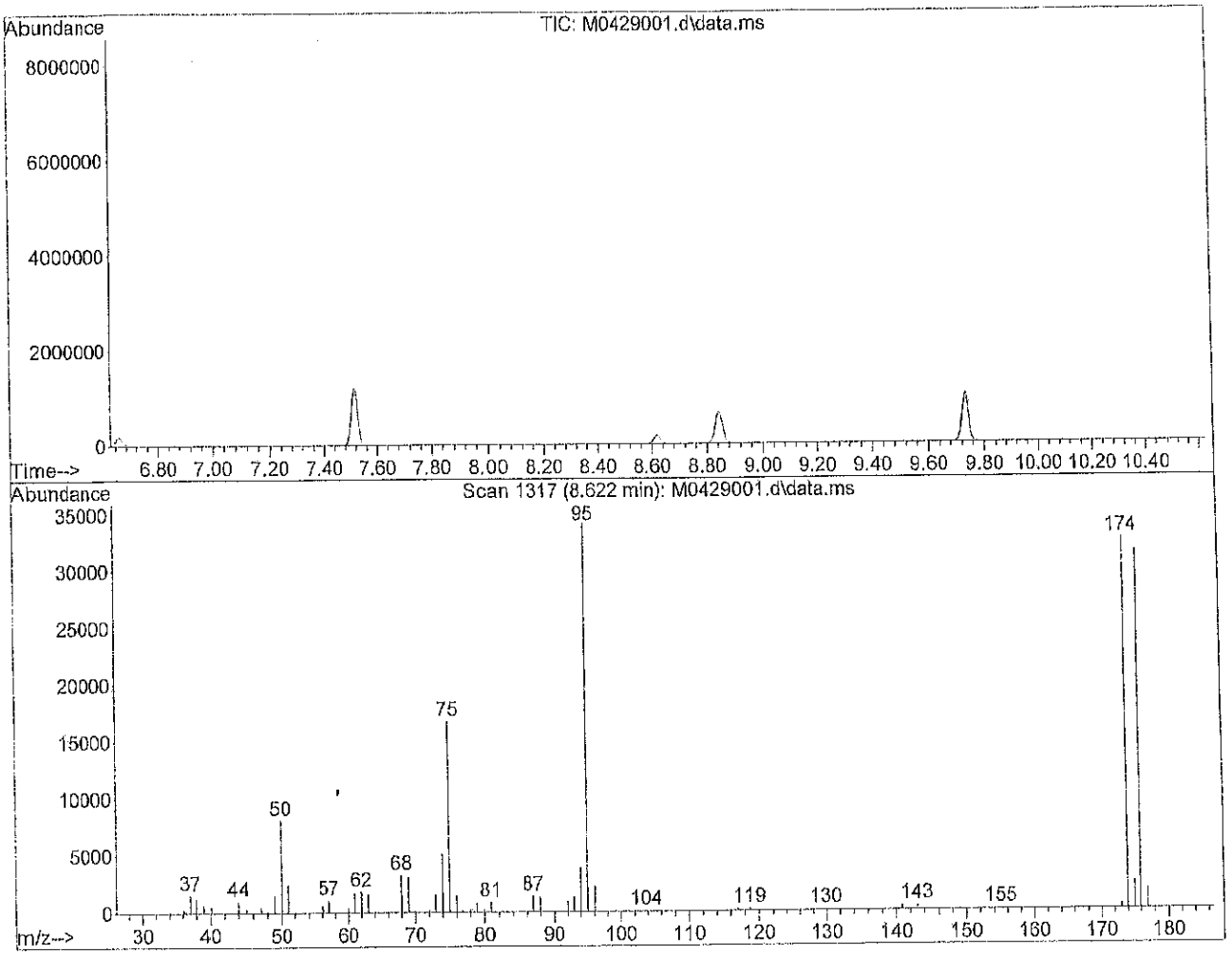
Quant Time: May 01 08:09:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429001.d
Acq On : 29 Apr 2014 7:03 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014



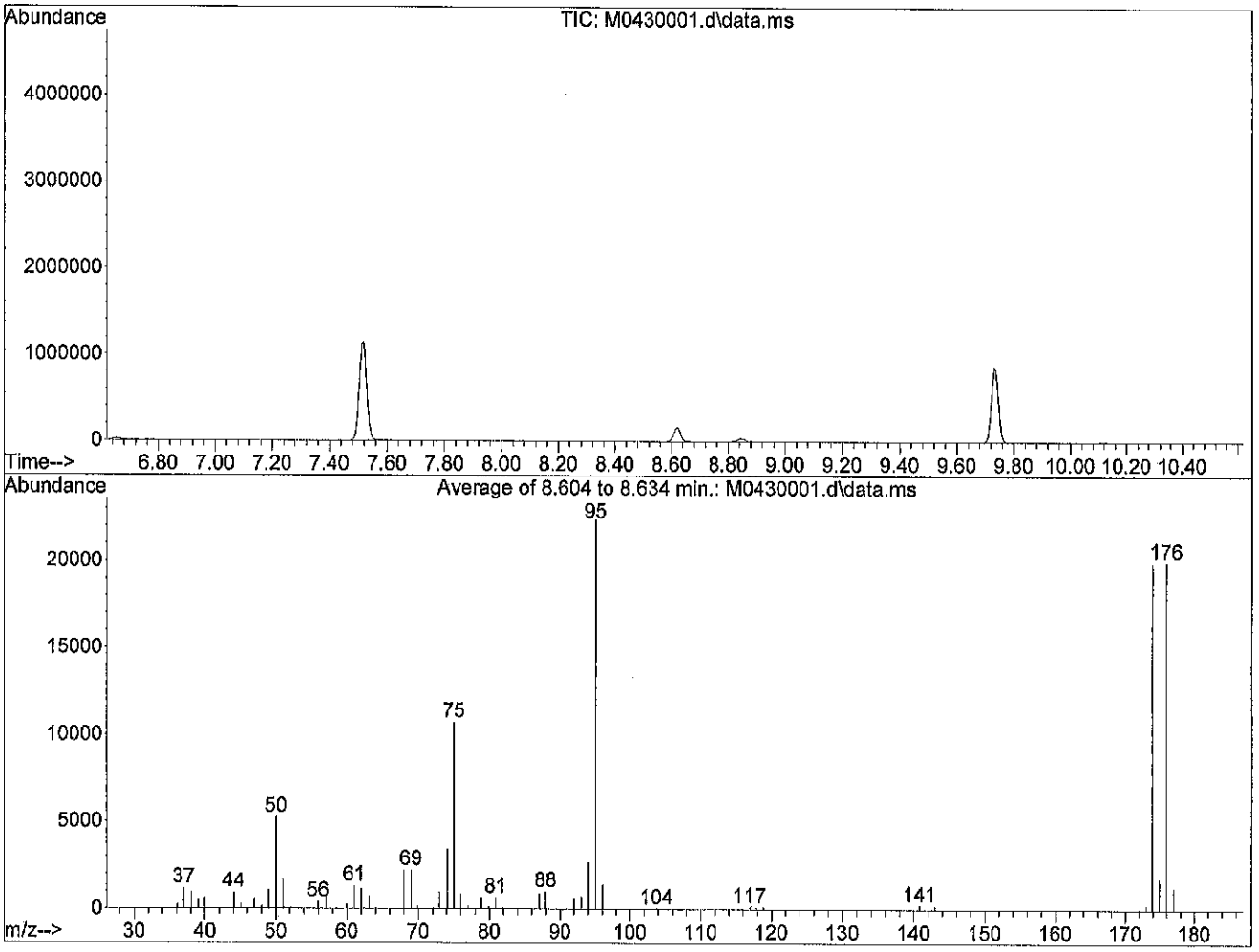
Spectrum Information: Scan 1317

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.9	8167	PASS
75	95	30	80	49.0	16768	PASS
95	95	100	100	100.0	34216	PASS
96	95	5	9	6.7	2283	PASS
173	174	0.00	2	1.2	402	PASS
174	95	50	100	95.2	32568	PASS
175	174	5	9	7.5	2428	PASS
176	174	95	101	96.7	31480	PASS
177	176	5	9	5.6	1770	PASS

Data Path : X:\VOLATILE\MORRIS\DATA\M140430\
Data File : M0430001.d
Acq On : 30 Apr 2014 6:59 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140429W.M
Title :
Last Update : Tue Apr 29 13:05:18 2014



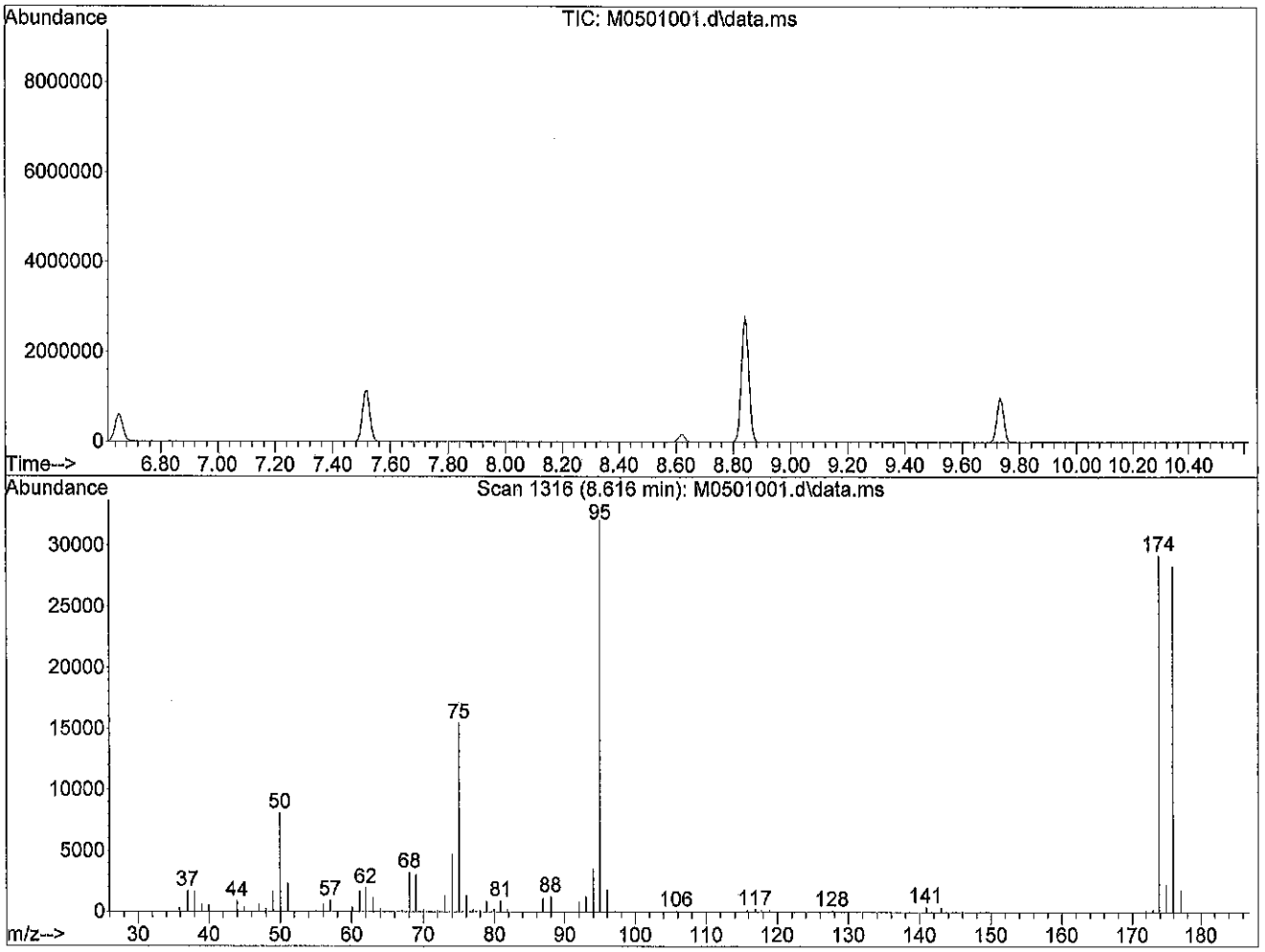
Spectrum Information: Average of 8.604 to 8.634 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.4	5250	PASS
75	95	30	80	47.8	10719	PASS
95	95	100	100	100.0	22421	PASS
96	95	5	9	6.2	1397	PASS
173	174	0.00	2	1.3	264	PASS
174	95	50	100	88.7	19889	PASS
175	174	5	9	8.8	1751	PASS
176	174	95	101	100.5	19979	PASS
177	176	5	9	6.4	1280	PASS

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501001.d
Acq On : 1 May 2014 7:24 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140429W.M
Title :
Last Update : Tue Apr 29 13:05:18 2014



Spectrum Information: Scan 1316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.3	8105	PASS
75	95	30	80	48.2	15462	PASS
95	95	100	100	100.0	32096	PASS
96	95	5	9	5.7	1816	PASS
173	174	0.00	2	0.9	255	PASS
174	95	50	100	91.2	29256	PASS
175	174	5	9	7.7	2260	PASS
176	174	95	101	97.0	28392	PASS
177	176	5	9	6.4	1814	PASS

GC/MS QA-QC Check Report

Tune File : X:\VOLATILE\MORRIS\DATA\M140430\M0430001.d
Tune Time : 30 Apr 2014 6:59 am

Daily Calibration File : X:\VOLATILE\MORRIS\DATA\M140430\M0430002.d

514813 713570 505358

201441

File	Sample	Surrogate Recovery %			Internal Standard Responses		
M0430004.d							
	SB0430W1/T	94	98	95	529942	752827	531963
				195935			
M0430005.d							
	SBD0430W1/	98	101	95	514950	736630	536298
				199743			
M0430006.d							
	MB0430W1	101	99	94	513198	733641	542412
				205134			
M0430024.d							
	04-180-01b	101	101	97	503247	721179	596230
				251424			
M0430025.d							
	04-180-02b	102	99	98	499092	734792	594227
				246275			
M0430026.d							
	04-180-04b	95	96	94	511921	742602	611565
				255449			
M0430027.d							
	04-180-03b	103	101	99	501223	729801	589232
				247604			

(fails) - fails 12hr time check * - fails criteria

Created: Thu May 01 08:08:48 2014 Morris

GC/MS QA-QC Check Report

Tune File : X:\VOLATILE\MORRIS\DATA\M140501\M0501001.d
Tune Time : 1 May 2014 7:24 am

Daily Calibration File : X:\VOLATILE\MORRIS\DATA\M140501\M0501002.d

522984 721879 525996

204660

File	Sample	Surrogate Recovery %			Internal Standard Responses		
M0501003.d							
	SB0501W1	88	98	93	524083	736760	529054
				194560			
M0501004.d							
	SBD0501W1	93	99	94	515554	733834	553906
				213829			
M0501005.d							
	MB0501W1	95	99	92	509176	720453	553393
				213784			
M0501006.d							
	04-180-05b	90	100	90	517692	730391	546533
				200947			
M0501007.d							
	04-180-06b	95	99	95	505463	728859	559084
				219069			
M0501008.d							
	04-180-07b	95	99	95	512459	736049	562357
				225925			

(fails) - fails 12hr time check * - fails criteria

Created: Thu May 01 11:12:48 2014 Morris

Sequence Name: C:\msdchem\1\sequence\M140429.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140430\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0429001 M140328W 50ng bfb mass tune
2)	Sample 2	M0430002 M140429W BLANK
3)	Sample 3	M0430003 M140429W 0.20 PPB ICAL
4)	Sample 4	M0430004 M140429W 1.0 PPB ICAL
5)	Sample 5	M0430005 M140429W 2.0 PPB ICAL
6)	Sample 6	M0430006 M140429W 5.0 PPB ICAL
7)	Sample 7	M0430007 M140429W 10 PPB ICAL
8)	Sample 8	M0430008 M140429W 25 PPB ICAL
9)	Sample 9	M0430009 M140429W BLANK
10)	Sample 10	M0430010 M140429W 50 PPB ICAL
11)	Sample 11	M0430011 M140429W BLANK
12)	Sample 12	M0430012 M140429W BLANK
13)	Sample 13	M0430013 M140429W ICV0429W1
14)	Sample 14	M0430014 M140429W BLANK
15)	Sample 15	M0430015 M140429W 04-180-01a 1:100 SCREEN
16)	Sample 16	M0430016 M140429W 04-180-02a 1:100 SCREEN
17)	Sample 17	M0430017 M140429W 04-180-03a 1:100 SCREEN
18)	Sample 18	M0430018 M140429W 04-180-04a 1:100 SCREEN
19)	Sample 19	M0430019 M140429W 04-180-05a 1:100 SCREEN
20)	Sample 20	M0430020 M140429W 04-199-01a 1:100 SCREEN
21)	Sample 21	M0430021 M140429W 04-199-02a 1:100 SCREEN
22)	Sample 22	M0430022 M140429W 04-199-03a 1:100 SCREEN
23)	Sample 23	M0430023 M140429W 04-199-05a 1:100 SCREEN
24)	Sample 24	M0430024 M140429W 04-204-01a 1:100 SCREEN
25)	Sample 25	M0430025 M140429W 04-204-02a 1:100 SCREEN
26)	Sample 26	M0430026 M140429W 04-204-03a 1:100 SCREEN
27)	Sample 27	M0430027 M140429W 04-204-04a 1:100 SCREEN
28)	Sample 28	M0430028 M140429W 04-204-05a 1:100 SCREEN

Sequence Name: C:\msdchem\1\sequence\M140430.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140430\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0430001 M140429W 50ng bfb mass tune
2)	Sample 2	M0430002 M140429W CCV0430W1
3)	Sample 3	M0430003 M140429W ICV0430W1
4)	Sample 4	M0430004 M140429W SB0430W1/T1
5)	Sample 5	M0430005 M140429W SBD0430W1/T1
6)	Sample 6	M0430006 M140429W MB0430W1
7)	Sample 7	M0430007 M140429W 04-244-02b
8)	Sample 8	M0430008 M140429W 04-244-01b 1:5
9)	Sample 9	M0430009 M140429W 04-244-04b 1:5
10)	Sample 10	M0430010 M140429W 04-244-03b
11)	Sample 11	M0430011 M140429W 04-244-05b 1:20
12)	Sample 12	M0430012 M140429W MB0429T3 1:10
13)	Sample 13	M0430013 M140429W 04-213-02aT 1:10
14)	Sample 14	M0430014 M140429W 04-033-06,08,09,11,12,13,14,1
15)	Sample 15	M0430015 M140429W 04-179-01b
16)	Sample 16	M0430016 M140429W 04-179-02b
17)	Sample 17	M0430017 M140429W 04-179-03b
18)	Sample 18	M0430018 M140429W 04-179-04b
19)	Sample 19	M0430019 M140429W 04-179-05b
20)	Sample 20	M0430020 M140429W 04-179-06b
21)	Sample 21	M0430021 M140429W 04-179-07b
22)	Sample 22	M0430022 M140429W 04-179-08b
23)	Sample 23	M0430023 M140429W 04-179-09b
24)	Sample 24	M0430024 M140429W 04-180-01b
25)	Sample 25	M0430025 M140429W 04-180-02b
26)	Sample 26	M0430026 M140429W 04-180-04b 1:5
27)	Sample 27	M0430027 M140429W 04-180-03b

Sequence Name: C:\msdchem\1\sequence\M140501.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140501\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

	Line		Sample Name/Misc Info
1)	Sample	1	M0501001 M140429W 50ng bfb mass tune
2)	Sample	2	M0501002 M140429W CCV0501W1
3)	Sample	3	M0501003 M140429W SB0501W1
4)	Sample	4	M0501004 M140429W SBD0501W1
5)	Sample	5	M0501005 M140429W MB0501W1
6)	Sample	6	M0501006 M140429W 04-180-05b
7)	Sample	7	M0501007 M140429W 04-180-06b
8)	Sample	8	M0501008 M140429W 04-180-07b

OnSite Environmental Inc.

WATER EXTRACTION LOG

Instrument Run #: M140430
Date: 4-30-14
Int. Std./Surr. Stock#: V3125-12 / V3-125-13
Matrix Spike Stock#: V3-125-17

# of Sample	Date	Sample I.D.	Volume	pH of Sample	Analyst	Miscellaneous
	4-30-14	MBD430W1	25mL	7	SD	
		SBD430W1/T1		7		
		SBD430W1/T1		7		
1		04-044-016	5mL	2		1:5
2		-02b	25mL	2		
3		-03b	25mL	2		
4		-04b	5mL	2		1:5
5		-05b	1.25mL	2		1:20
		MBD429-T3	2.5mL	7		TCLP 1:10
1		04-013-02a	2.5mL	7		TCLP 1:10
2		04-033-Comp.	0.25mL	7		TCLP 1:100
6		04-179-016	25mL	2		
7		-02b		2		
8		-03b		2		
9		-04b		2		
10		-05b		2		
11		-06b		2		
12		-07b		2		
13		-08b		2		
14		-09b		2		
15		04-180-016		2		
16		-02b		2		
17		-03b		2		
18		-04b	5mL	2		1:5

SD 4-30-14

OnSite Environmental Inc.

WATER EXTRACTION LOG

Instrument Run #: M140501
Date: 5-1-14

Int. Std./Surr. Stock#: V3-125-12 | V3-125-13
Matrix Spike Stock#: V3-125-11

# of Sample	Date	Sample I.D.	Volume	pH of Sample	Analyst	Miscellaneous
	5-1-14	MB0501W1	25mL	7	SD	
		SB0501W1		7		
		SBD0501W1		7		
1		04-180-05b		2		
2		-06b		2		
3		-07b		2		
4		04-198-01b		2		
5		-02b		2		
6		-03b		2		
7		-04b		2		
8		-05b		2		
9		-06b		2		
10		-07b		2		
11		04-199-01b		2		
12		-02b		2		
13		-03b		2		
14		-04b		2		
15		-05b		2		
16		-06b		2		

SDS 1-14

TITLE

PROJECT

Continued from page 11a

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
VOC ADD'S	V3-115-1							10-1-13	SD
250 ppm ICAL	V3-115-2	V3-114-4	2000 ppm	25 mL	1 mL	250 ppm	MeOH	10-1-13	SD
		V3-114-16							
		V3-115-1							
50 ppm ICAL	V3-115-3	V3-115-2	250 ppm	200 µL	1 mL	50 ppm	MeOH	10-1-13	SD
10 ppm ICAL	V3-115-4	V3-115-3	50 ppm	200 µL	1 mL	10 ppm	MeOH	10-1-13	SD
5 ppm ICAL	V3-115-5	V3-115-3	50 ppm	100 µL	1 mL	5 ppm	MeOH	10-1-13	SD
1 ppm ICAL	V3-115-6	V3-115-3	50 ppm	20 µL	1 mL	1 ppm	MeOH	10-1-13	SD
50 ppm SS (low)	V3-115-7	V3-113-16	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
50 ppm ICV	V3-115-8	V3-101-7	2000 ppm	25 mL	1 mL	50 ppm	MeOH	10-2-13	SD
		V3-101-8							
		V3-101-9							
50 ppm CCV	V3-115-9	V3-114-4	2000 ppm	25 mL	1 mL	50 ppm	MeOH	10-2-13	SD
		V3-114-16							
		V3-115-1							
2000 ppm SS	V3-115-10							10-7-13	SD
250 ppm SS	V3-115-11	V3-113-16			4 mL	250 ppm	MeOH	10-7-13	SD
		V3-115-10	2000 ppm	500 µL					
250 ppm IS	V3-115-12	V3-114-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-8-13	SD
LOW 50 ppm SS	V3-115-13	V3-115-10	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	SD
50 ppm ICV	V3-115-14	V3-114-14	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	SD
.05 ppm ICAL	V3-115-15	V3-115-6	1 ppm	.050 mL	1 mL	.050 ppm	MeOH	10-9-13	SD
50 ppm CCV	V3-115-16	V3-114-4	2000 ppm	25 mL	1 mL	50 ppm	MeOH	10-10-13	SD
		V3-114-16							
		V3-115-1							
250 ppm MS	V3-115-17							10-10-13	SD

Continued to page 11b

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 213091338
Exp: Jan 25,2014
1 mL
8 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard ~~VOA Mix~~
2.0 mg/mL in MeOH
Lot: 212051380
Exp: Jun 1,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
CLP-003-R-10X
Purgeable Organic Matrix Spiking Soln.
2.5 mg/mL in MeOH
Lot: 212011385
Exp: Feb 6,2022
1 mL
5 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

SIGNATURE

DISCLOSED TO AND UNDERSTOOD BY | DATE | PROPRIETARY INFORMATION

TITLE **PROJECT**

Continued from page 120

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
	2000 ppm IS	V3-121-1							2-3-14	SD
5										
Albert	250 ppm IS	V3-121-2	V3-120-8 + V3-121-1	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-3-14	SD
	50 ppm IS	V3-121-3	V3-119-9	2500 ppm	20 mL	1 mL	50 ppm	MeOH	2-3-14	SD
10	2000 ppm SS	V3-121-4							2-4-14	SD
Albert	250 ppm SS	V3-120-13 + V3-121-4	2000 ppm	500 mL	4 mL	1 mL 250 ppm SD 2-4-14	250 ppm MeOH SD 2-4-14	MeOH	2-4-14	SD
Albert	250 ppm SS	V3-121-5	V3-120-13 + V3-121-4	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-4-14	SD
20	VOC Liquids	V3-121-6							2-5-14	SD
	VOC ADDIS	V3-121-7							2-5-14	SD
25	VOC GASES	V3-121-8							2-5-14	SD
30	250 ppm ICAL	V3-121-9	V3-121-6 V3-121-7 V3-121-8	2000 ppm	125 mL	1 mL	250 ppm	MeOH	2-5-14	SD
	50 ppm ICAL	V3-121-10	V3-121-9	250 ppm	200 mL	1 mL	50 ppm	MeOH	2-5-14	SD
	10 ppm ICAL	V3-121-11	V3-121-10	50 ppm	200 mL	1 mL	10 ppm	MeOH	2-5-14	SD
35	5 ppm ICAL	V3-121-12	V3-121-10	50 ppm	100 mL	1 mL	5 ppm	MeOH	2-5-14	SD

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287
Exp: Nov 19,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 212051380
Exp: Jun 1,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-502A-R3-10X
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619
Exp: Aug 30,2015
1 mL
55 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 213121006
Exp: Apr 3,2014
1 mL
8 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424
Exp: May 2,2016
1 mL
6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

Continued to page 122

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

V3 - 122
BOOK PAGE

TITLE

PROJECT

Continued from page 121

ANALYTE	LAB ID	Stock ID	Stock Conc	Stock Vol	FINAL Vol	FINAL Conc	SOLVENT	DATE	INITIALS
~~1 ppm ICAL~~	~~V3-122-1~~	~~V3-121-10~~	~~50 ppm~~	~~20 mL~~	~~1 mL~~	~~1 ppm~~	~~MeOH~~	~~2-5-14~~	~~SD~~
~~2 ppm ICAL~~	~~V3-122-2~~	~~V3-121-1~~	~~1 ppm~~	~~5 mL~~	~~0.5 mL~~	~~2 ppm~~	~~MeOH~~	~~2-5-14~~	~~SD~~
ICV VOC LIQUIDS	V3-122-3								
ICV VOC ADDs	V3-122-4								
ICV VOC GASES	V3-122-5								
50 ppm ICV	V3-122-6	V3-122-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-5-14	SD
		V3-122-4	"	"	"	"	"	"	"
		V3-122-5	"	"	"	"	"	"	"
100 ppm ACRYL/DCB	V3-122-7	V3-117-11	100 ppm	500 µL	1 mL	100 ppm	MeOH	2-5-14	SD
		V3-117-12	100 ppm	500 µL					
50 ppm ACRYL/DCB	V3-122-8	~~V3-188-7~~ V3-50-2-5-14	100 ppm	500 mL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ACRYL/DCB	V3-122-9	V3-122-8	50 ppm	200 µL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ACRYL/DCB	V3-122-10	V3-122-8	50 ppm	100 µL	1 mL	5 ppm	MeOH	2-5-14	SD
~~50 ppm CCV~~	~~V3-122-11~~	~~V3-121-6~~	~~2000 ppm~~	~~25 mL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~2-7-14~~	~~SD~~
		V3-121-7	"	"	"	"	"		
		V3-121-8	"	"	"	"	"		
~~250 ppm IS~~	~~V3-122-12~~	~~V3-121-1~~	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~2-7-14~~	~~SD~~
~~250 ppm SS~~	~~V3-122-13~~	~~V3-121-1~~	~~2000 ppm~~	~~500 mL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-18-14~~	~~SD~~
~~2000 ppm IS~~	~~V3-122-14~~							2-24-14	SD
250 ppm IS	V3-122-15	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-24-14	SD
		V3-122-14	"	"	"	"	"	"	"

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SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE PROPRIETARY INFORMATION

TITLE

PROJECT

Continued from page 2

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
	50 ppm SS (tune)	V3-123-1	V3-121-4	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-26-14	SD
	50 ppm CCV	V3-123-2	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-27-14	SD
			V3-121-7							
			V3-121-8							
waldo	50 ppm IS	V3-123-3	V3-122-14	2000 ppm	100 mL	4 mL	50 ppm	MeOH	2-27-14	EBN
waldo	50 ppm SS	V3-123-4	V3-121-4	2000 ppm	100 mL	4 mL	50 ppm	MeOH	2-27-14	EBN
	~~2000 ppm SS~~	V3-123-5							2-28-14	SD
									spent	
									3-2-14	
Albert	250 ppm SS	V3-123-6	V3-121-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-28-14	SD
			V3-123-5							
	~~50 ppm SS~~	V3-123-7	~~V3-121-4~~	~~2000 ppm~~	625 µL	25 mL	~~50 ppm~~	~~MeOH~~	3-6-14	SD
Morris	50 ppm SS	V3-123-8							3-10-14	SD
	~~2000 ppm IS~~								spent	
									3-13-14	
Albert	250 ppm IS	V3-123-9	V3-122-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
			V3-123-8							
Albert	250 ppm SS	V3-123-10	~~V3-123-5~~	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
	50 ppm CCV	V3-123-11	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-10-14	SD
			V3-121-7							
			V3-121-8							
	50 ppm CCV	V3-123-12	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-121-8							
	VOC GASES	V3-123-13							3-13-14	SD
	50 ppm CCV	V3-123-14	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-123-13							

Continued to page

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028
Exp: Nov 6,2023
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287
Exp: Nov 19,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424
Exp: May 2,2016
1 mL
6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

SIGNATURE DATE

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PROPRIETARY INFORMATION

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TITLE

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Continued from page 123	Lab	Stock	Stock	Stock	Final	Final	Solvent	Date	Initials
Analyte	ID	ID	conc.	Vol.	Vol.	conc.			
250 ppm IS/SS	V3-124-1	V3-123-8	2000 ppm	250 µL	2 mL	250 ppm	MeOH	3-14-14	CEM
		V3-123-5		250 µL					
~~50 ppm MS~~	~~V3-124-2~~	~~V3-115-17~~	~~2500 ppm~~	~~80 µL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~
50 ppm ICV	V3-124-3	V3-123-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-19-14	SD
		V3-123-4							
		V3-123-5							
VOC Liquids	V3-124-4							3-19-14	SD
VOC ADD's	V3-124-5							3-19-14	SD
250 ppm ICAL	V3-124-6	V3-123-3	2000 ppm	125 mL	1 mL	250 ppm	MeOH	3-19-14	SD
		V3-124-4							
		V3-124-5							
50 ppm ICAL	V3-124-7	V3-124-6	250 ppm	200	1 mL	50 ppm	MeOH	3-19-14	SD
10 ppm ICAL	V3-124-8	V3-124-7	50 ppm	200	1 mL	10 ppm	MeOH	3-19-14	SD
5 ppm ICAL	V3-124-9	V3-124-7	50 ppm	100	1 mL	5 ppm	MeOH	3-19-14	SD
1 ppm ICAL	V3-124-10	V3-124-7	50 ppm	20	1 mL	1 ppm	MeOH	3-19-14	SD
~~ICV 50 ppm~~	~~V3-124-11~~	~~V3-123-3~~	~~2000 ppm~~	~~25 mL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~
		V3-124-4							
		V3-124-5							
2000 ppm SS	V3-124-12							3-21-14	SD
~~250 ppm IS~~	~~V3-124-13~~	~~V3-123-8~~	~~2000 ppm~~	~~500 mL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~
250 ppm SS	V3-124-14	V3-123-5	2000 ppm	500 mL	4 mL	250 ppm	MeOH	3-21-14	SD
		V3-124-12							
~~2000 ppm IS~~	~~V3-124-15~~							3-31-14	SD

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214021286 8 comps.
Exp: Jun 28,2014 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Storage: Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6,2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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PROPRIETARY INFORMATION

TITLE **PROJECT**

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	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INIT/
Albert	250 ppm IS	V3-125-1	V3-123-8		500 µL	4 mL	250 ppm	MeOH	3-31-14	SD
			V3-124-15	2000 ppm						
Albert	250 ppm SS	V3-125-2	V3-124-12	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-31-14	SD
Albert	250 ppm IS	V3-125-3	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-9-14	SD
	50 ppm CCV	V3-125-4	V3-123-13	2000 ppm	25 µL	1 mL	50 ppm	MeOH	4-9-14	SD
			V3-124-4							
			V3-124-5							
10	50 ppm M.S.	V3-125-5	V3-115-17	2500 ppm	20 µL	1 mL	50 ppm	MeOH	4-9-14	SD
Albert	250 ppm SS	V3-125-6	V3-124-12	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-14-14	SD
Albert	250 ppm IS	V3-125-7	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-16-14	SD
	2000 ppm IS	V3-125-8							4-21-14	SD
15										
	2000 ppm SS	V3-125-9							4-21-14	SD
20										
Albert	250 ppm IS	V3-125-10	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-21-14	SD
Albert	250 ppm SS	V3-125-11	V3-125-9	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-21-14	SD
Morris	50 ppm IS	V3-125-12	V3-125-8	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
Morris	50 ppm SS	V3-125-13	V3-125-9	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
25	50 ppm CCV	V3-125-14	V3-123-13	2000 ppm	25 µL	1 mL	50 ppm	MeOH	4-22-14	SD
			V3-124-4							
			V3-124-5							
Albert	250 ppm IS	V3-125-15	V3-125-8	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-25-14	SD
Albert	250 ppm SS	V3-125-16	V3-125-9	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-25-14	SD
30	50 ppm M.S.	V3-125-17	V3-115-17	2500 ppm	20 µL	1 mL	50 ppm	MeOH	4-25-14	SD
	2000 ppm SS	V3-125-18							4-28-14	SD
Albert	250 ppm SS	V3-125-19	V3-125-9 + V3-125-16	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-28-14	SD

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19, 2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
Storage: Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6, 2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6, 2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
50 ppm CCV	V3126-1	V3-12313	2000 ppm	25 mL	1 mL	50 ppm	MeOH	4.28.14	SD
		V3124-4	"	"	"	"	"	"	"
		V3124-5	"	"	"	"	"	"	"
250 ppm LS	V3-1262	V3-125-8	20000 ppm	250 mL	2 mL	250 ppm	MeOH	5-1-14	SD
250 ppm SS	V3126-3	V3-125-18	20000 ppm	250 mL	2 mL	250 ppm	MeOH	5-1-14	SD

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PROPRIETARY INFORMATION

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 2, 2014

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0180-121-09
Laboratory Reference No. 1404-198

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on April 23, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-198
Project: 0180-121-09

Case Narrative

Samples were collected on April 22, 2014 and received by the laboratory on April 23, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-198
Project: 0180-121-09

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
PZ-722-140422	04-198-01	Water	04-22-14	04-23-14	
PZ-721-140422	04-198-02	Water	04-22-14	04-23-14	
PZ-724-140422	04-198-03	Water	04-22-14	04-23-14	
PZ-725-140422	04-198-04	Water	04-22-14	04-23-14	
RPZ-732-140422	04-198-05	Water	04-22-14	04-23-14	
DUP-1-140422	04-198-06	Water	04-22-14	04-23-14	
TB-1-140422	04-198-07	Water	04-22-14	04-23-14	

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-198
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PZ-722-140422**					
Laboratory ID:	04-198-01					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*97*	*71-120*				

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-198
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PZ-721-140422**					
Laboratory ID:	04-198-02					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	0.28	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	37	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*62-122*				
Toluene-d8	*101*	*70-120*				
4-Bromofluorobenzene	*96*	*71-120*				

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-198
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PZ-724-140422**					
Laboratory ID:	04-198-03					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	0.92	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	29	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*97*	*71-120*				

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-198
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PZ-725-140422**					
Laboratory ID:	04-198-04					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*98*	*71-120*				

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-198
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RPZ-732-140422**					
Laboratory ID:	04-198-05					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	0.23	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*62-122*				
Toluene-d8	*98*	*70-120*				
4-Bromofluorobenzene	*99*	*71-120*				

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-198
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DUP-1-140422**					
Laboratory ID:	04-198-06					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	0.27	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	37	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*98*	*71-120*				

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-198
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TB-1-140422**					
Laboratory ID:	04-198-07					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*91*	*62-122*				
Toluene-d8	*98*	*70-120*				
4-Bromofluorobenzene	*95*	*71-120*				

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-198
Project: 0180-121-09

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0501W1					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*92*	*71-120*				

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-198
Project: 0180-121-09

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0501W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.4**	**10.4**	10.0	10.0	104	104	63-142	0	17	
Benzene	**9.70**	**9.85**	10.0	10.0	97	99	78-125	2	15	
Trichloroethene	**9.61**	**9.40**	10.0	10.0	96	94	80-125	2	15	
Toluene	**9.71**	**9.86**	10.0	10.0	97	99	80-125	2	15	
Chlorobenzene	**10.7**	**10.5**	10.0	10.0	107	105	80-140	2	15	
Surrogate:										
Dibromofluoromethane					*88*	*93*	*62-122*			
Toluene-d8					*98*	*99*	*70-120*			
4-Bromofluorobenzene					*93*	*94*	*71-120*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

14

Company: GeoEngineers
Project Number: 0180-121-09
Project Name: Palermo
Project Manager: Nick Rohrbach
Sampled by: Brandon Brayfield

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 04-198

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	PAH List 4065	% Moisture
1	PZ-722-140422	4/22/14	0925	W	3																	X	
2	PZ-721-140422		1010	W	3																	X	
3	PZ-724-140422		1115	W	3																	X	
4	PZ-725-140422		1215	W	3																	X	
5	RPZ-732-140422		1505	W	3																	X	
6	DUP-1-140422			W	3																	X	
7	TB-1-140422			W	2																	X	

	Signature	Company	Date	Time
Relinquished		GeoEngineers	4/23/14	830
Received		Spdy	11	830
Relinquished			11	1215
Received		GeoE	4/23/14	1215
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☒ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 0180-121-09

OnSite Project Number: 04-198

Initiated by: MM

Date Initiated: 4/23/14

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 2		
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A			
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No	1 2 3 4	
2.2 Was the COC legible and written in permanent ink?	Yes	No	1 2 3 4	
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No	1 2 3 4	
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No	1 2 3 4	
2.5 Were all of the samples listed on the COC submitted?	Yes	No	1 2 3 4	
2.6 Were any of the samples submitted omitted from the COC?	Yes	No	1 2 3 4	

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No	1 2 3 4	
3.2 Were any sample labels missing or illegible?	Yes	No	1 2 3 4	
3.3 Have the correct containers been used for each analysis requested?	Yes	No	1 2 3 4	
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

Complete Data Package

- Volatiles by EPA 8260C

Volatiles by EPA 8260C Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501010.d
Acq On : 1 May 2014 11:22 am
Operator :
Sample : 04-198-01b
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 01 12:24:33 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

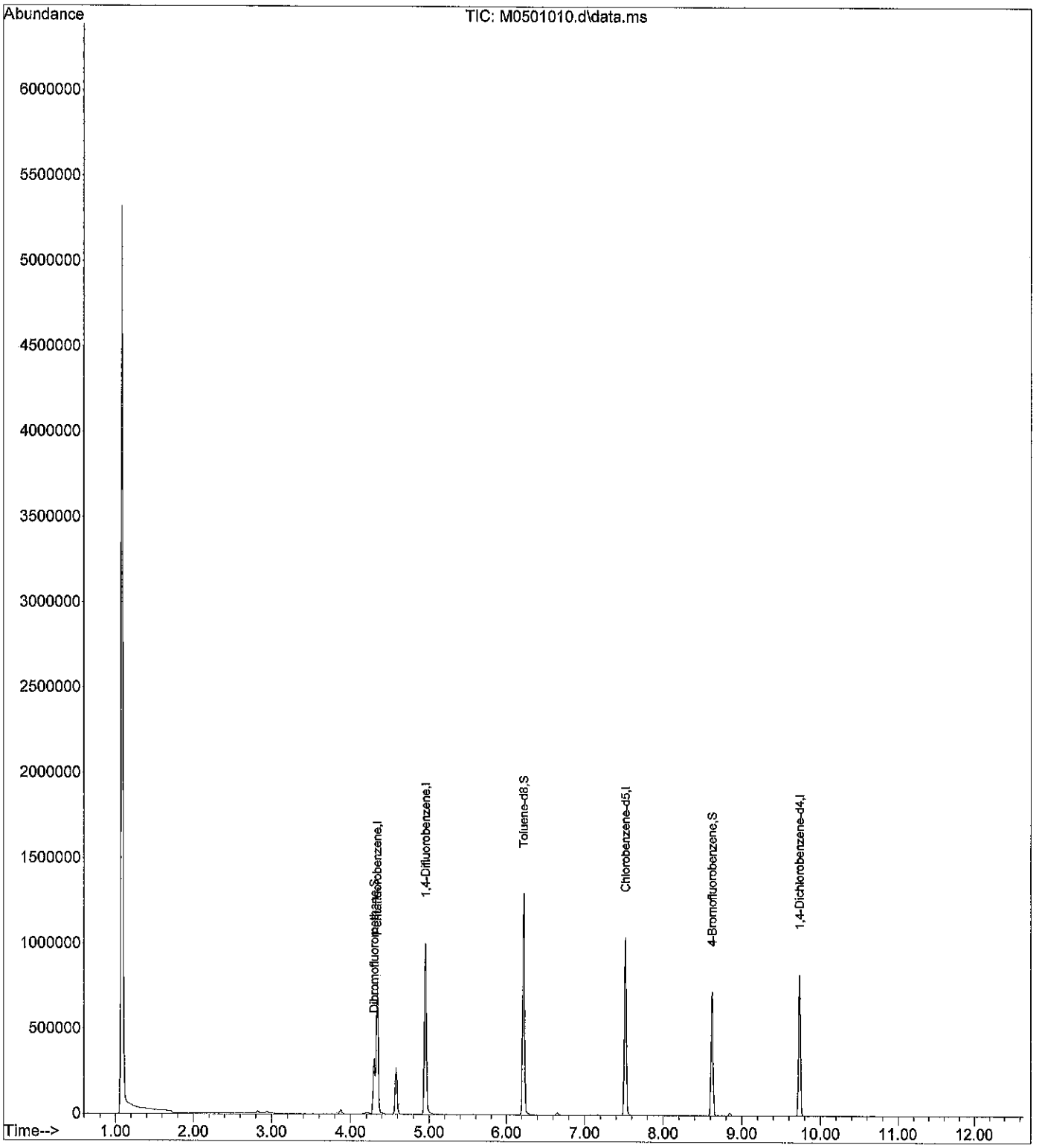
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	508370	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	738720	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	584945	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	233866	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	176241	9.58	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 95.80%			
36) Toluene-d8	6.220	98	805679	9.97	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.70%			
54) 4-Bromofluorobenzene	8.622	95	243657	9.70	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.00%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501010.d
Acq On : 1 May 2014 11:22 am
Operator :
Sample : 04-198-01b
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 01 12:24:33 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501015.d
Acq On : 1 May 2014 1:20 pm
Operator :
Sample : 04-198-02b
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 01 14:31:01 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

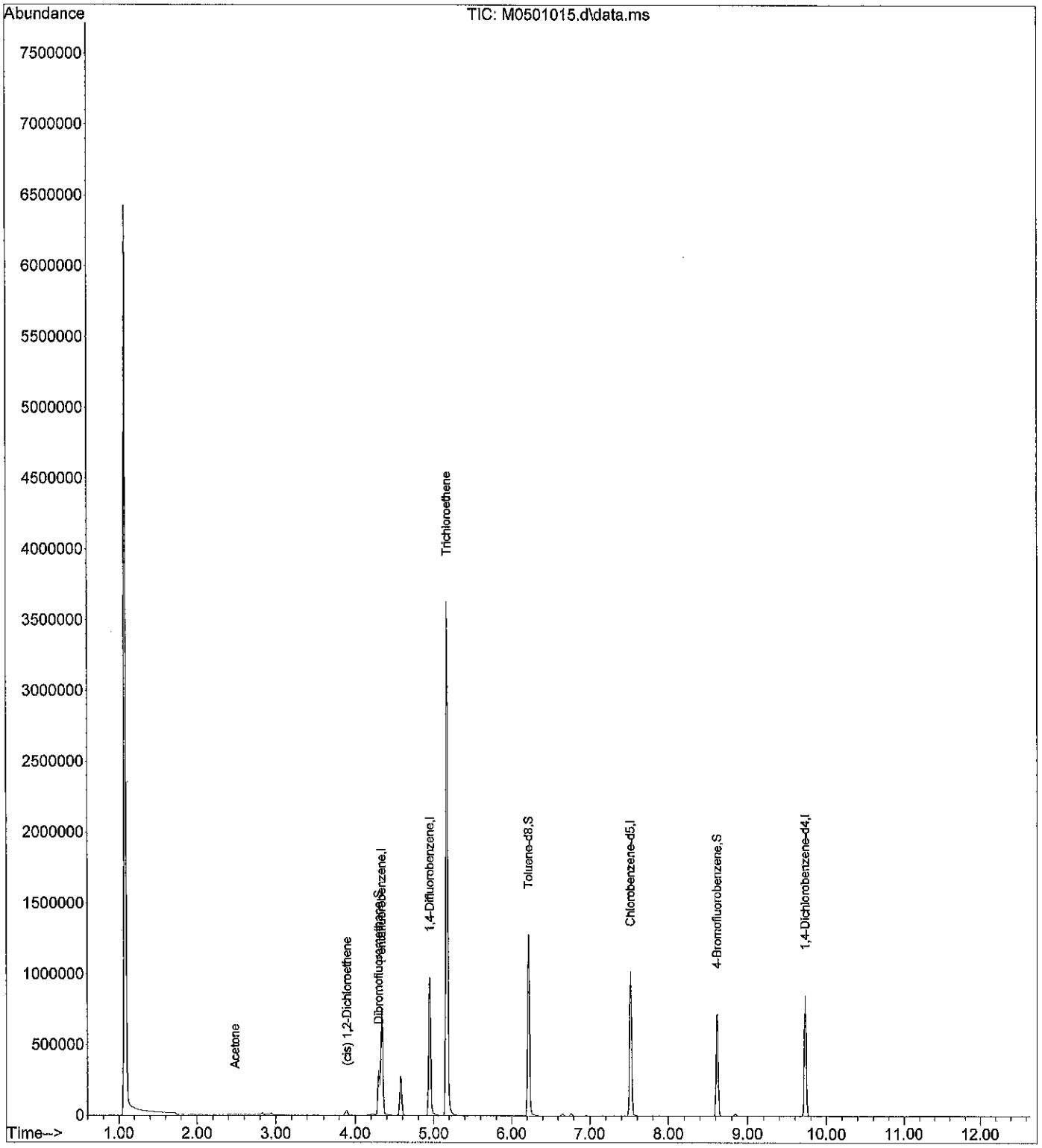
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	499559	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	722759	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	581368	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	236516	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	174036	9.63	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 96.30%			
36) Toluene-d8	6.220	98	795502	10.06	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.60%			
54) 4-Bromofluorobenzene	8.622	95	239720	9.60	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 96.00%			
Target Compounds						Qvalue
9) Acetone	2.483	43	2221	0.69	ppb	96
18) (cis) 1,2-Dichloroethene	3.897	61	14339	0.28	ppb	100
29) Trichloroethene	5.171	130	1175845	36.81	ppb	100

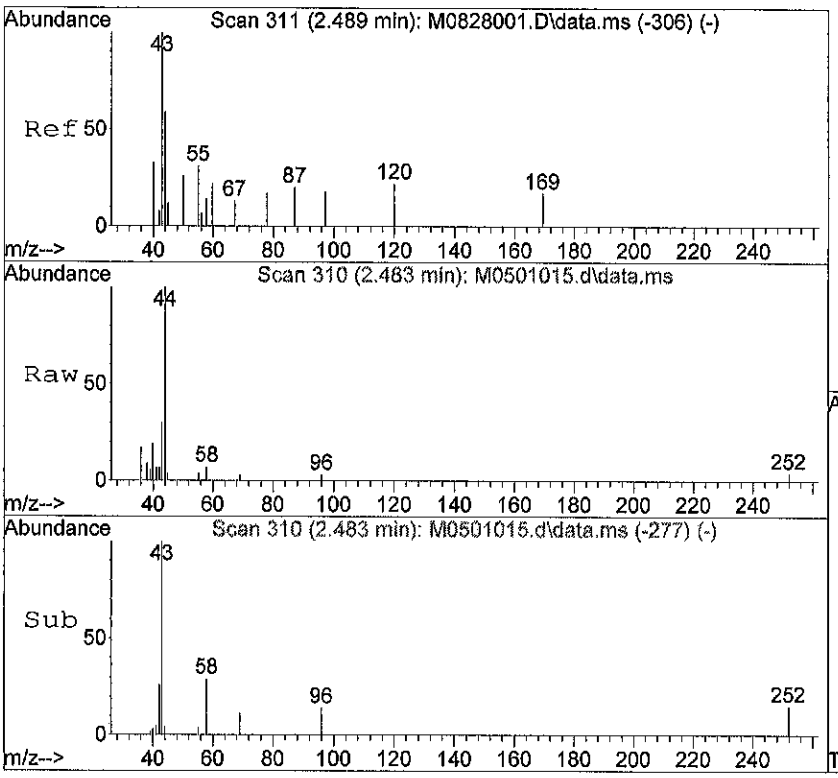
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501015.d
Acq On : 1 May 2014 1:20 pm
Operator :
Sample : 04-198-02b
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 01 14:31:01 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

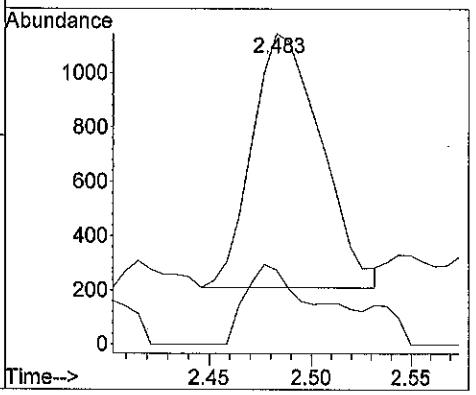


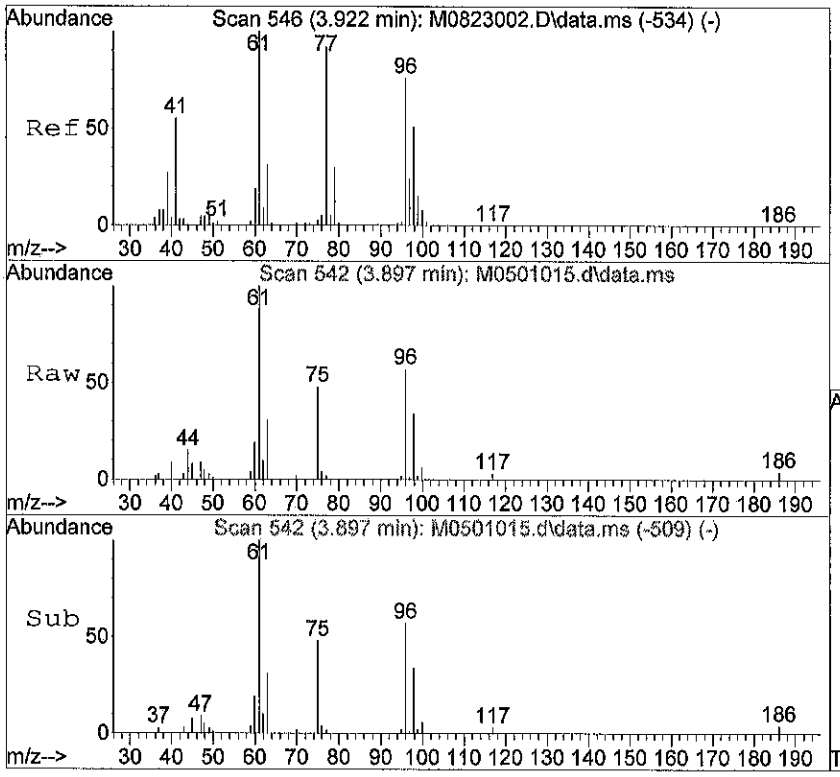


#9
Acetone
Concen: 0.69 ppb
RT: 2.483 min Scan# 310
Delta R.T. -0.000 min
Lab File: M0501015.d
Acq: 1 May 2014 1:20 pm

Tgt Ion: 43 Resp: 2221

Ion	Ratio	Lower	Upper
43	100		
58	33.2	28.6	43.0

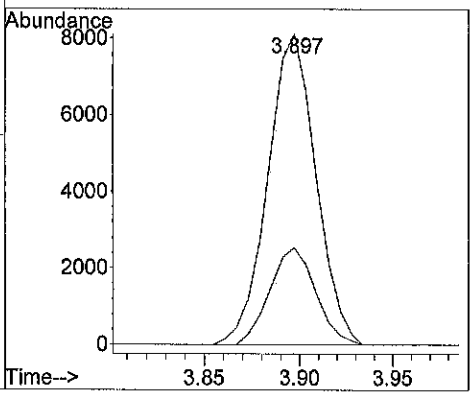


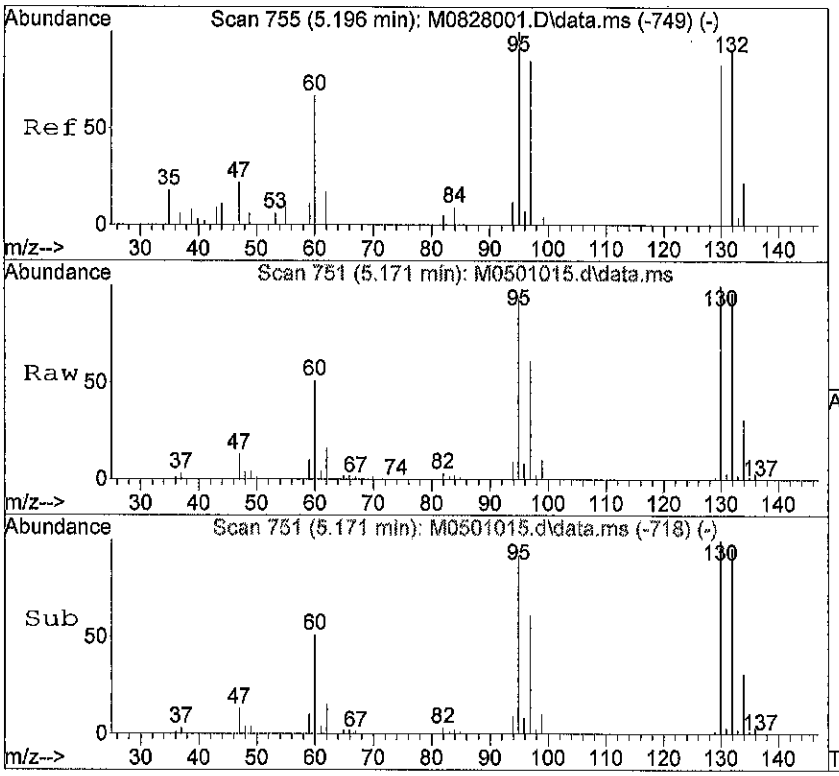


#18
(cis) 1,2-Dichloroethene
Concen: 0.28 ppb
RT: 3.897 min Scan# 542
Delta R.T. 0.000 min
Lab File: M0501015.d
Acq: 1 May 2014 1:20 pm

Tgt Ion: 61 Resp: 14339

Ion	Ratio	Lower	Upper
61	100		
63	29.7	24.0	36.0

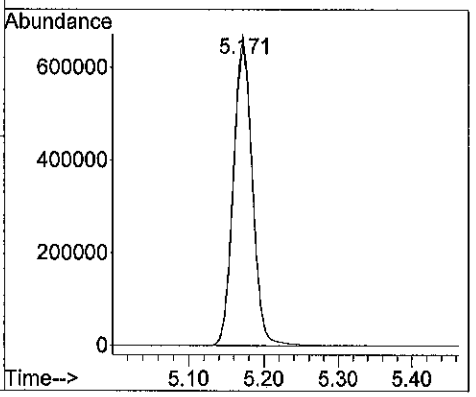




#29
Trichloroethene
Concen: 36.81 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0501015.d
Acq: 1 May 2014 1:20 pm

Tgt Ion:130 Resp: 1175845

Ion	Ratio	Lower	Upper
130	100		
132	96.2	77.0	115.4



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501013.d
Acq On : 1 May 2014 12:33 pm
Operator :
Sample : 04-198-03b
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 01 12:47:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

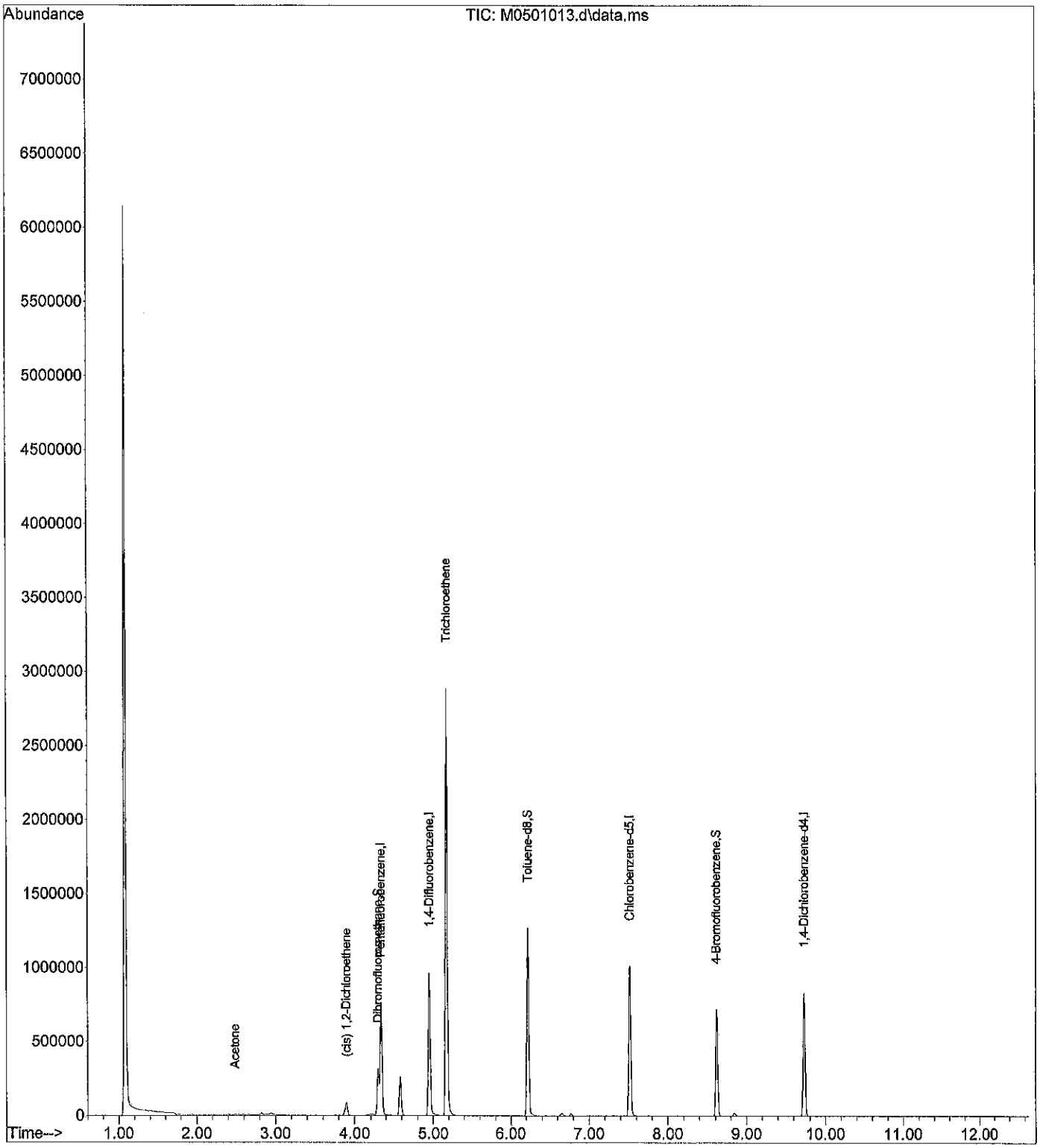
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	490415	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	716599	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	571092	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	230803	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	171375	9.66	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 96.60%			
36) Toluene-d8	6.220	98	787858	10.05	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.50%			
54) 4-Bromofluorobenzene	8.616	95	238274	9.71	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.10%			
Target Compounds						Qvalue
9) Acetone	2.489	43	2296	0.72	ppb	95
18) (cis) 1,2-Dichloroethene	3.897	61	46627	0.92	ppb	98
29) Trichloroethene	5.171	130	925407	29.22	ppb	100

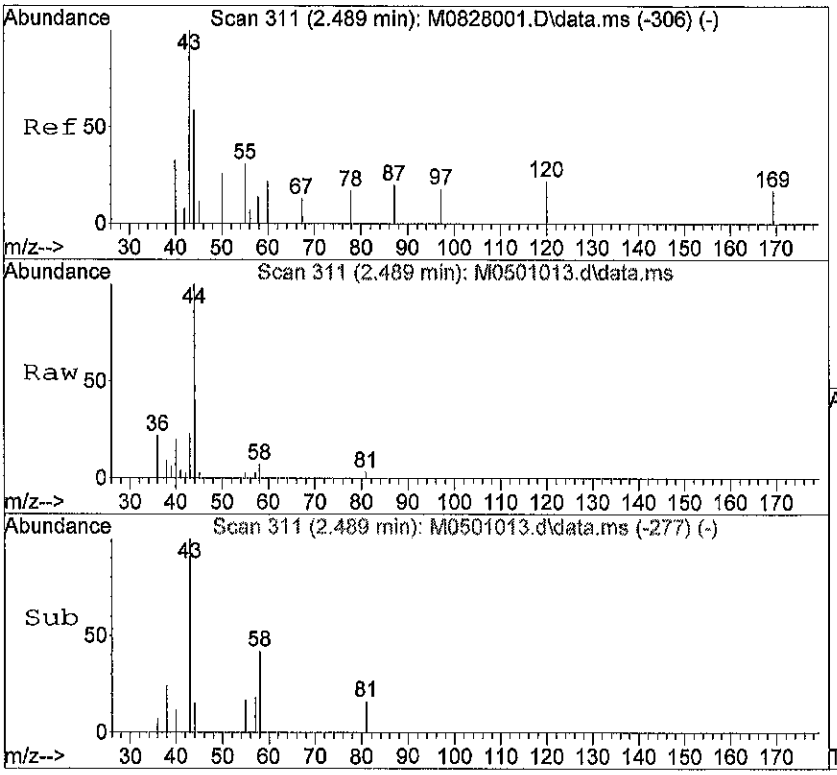
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501013.d
Acq On : 1 May 2014 12:33 pm
Operator :
Sample : 04-198-03b
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 01 12:47:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

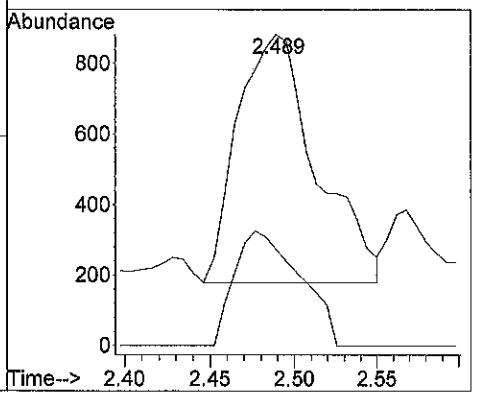


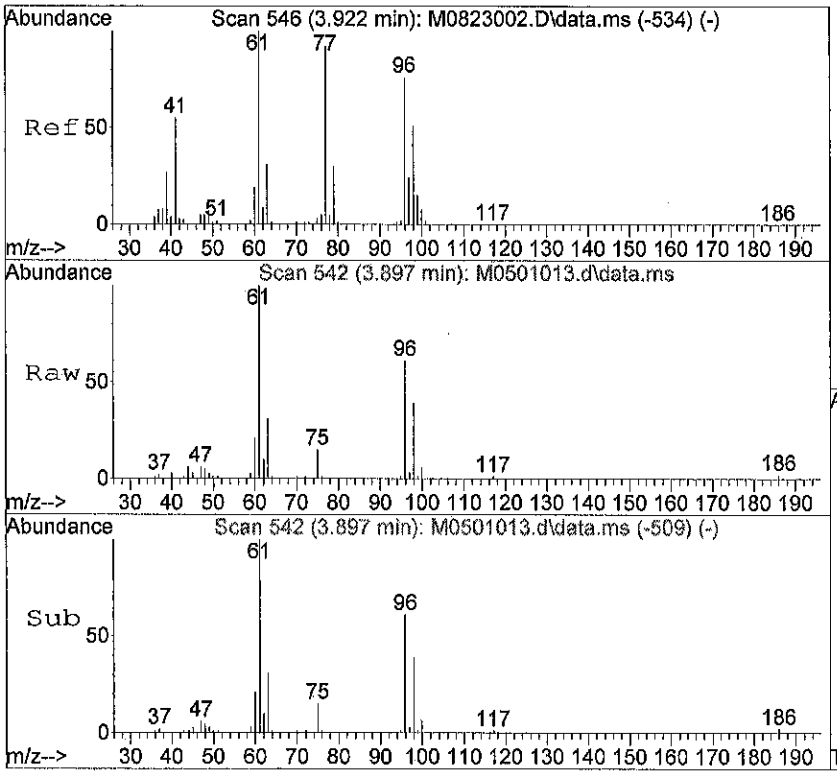


#9
Acetone
Concen: 0.72 ppb
RT: 2.489 min Scan# 311
Delta R.T. 0.006 min
Lab File: M0501013.d
Acq: 1 May 2014 12:33 pm

Tgt Ion: 43 Resp: 2296

Ion	Ratio	Lower	Upper
43	100		
58	38.7	28.6	43.0

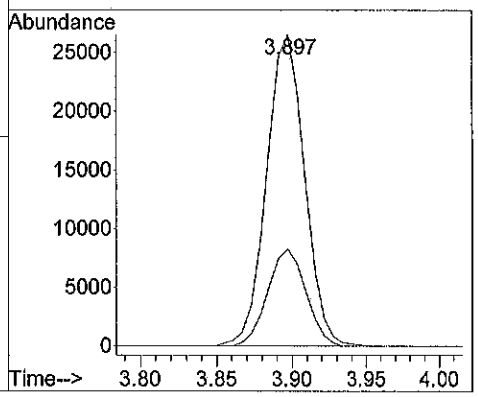


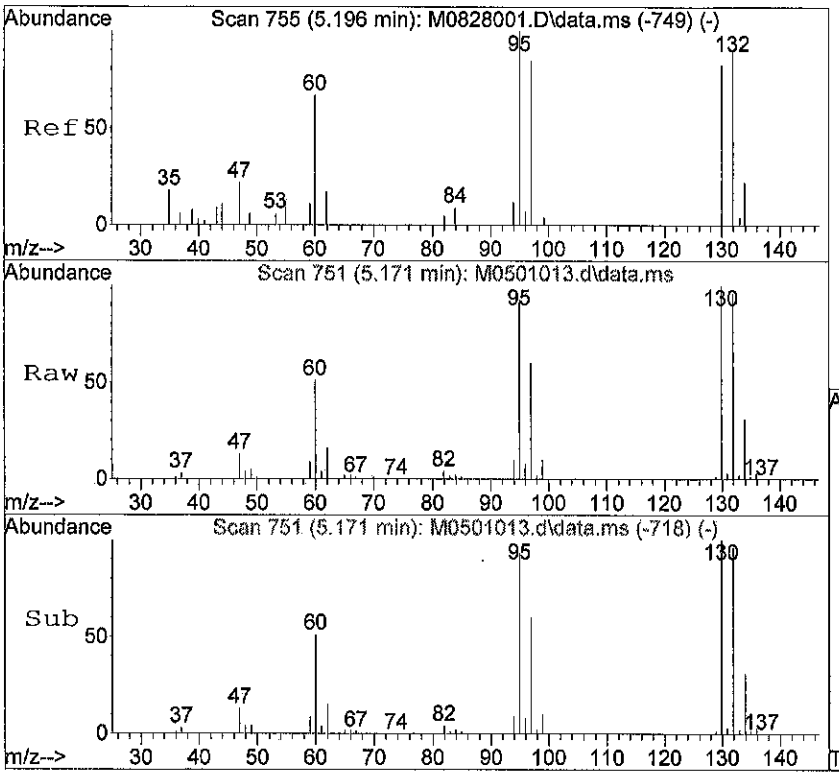


#18
(cis) 1,2-Dichloroethene
Concen: 0.92 ppb
RT: 3.897 min Scan# 542
Delta R.T. 0.000 min
Lab File: M0501013.d
Acq: 1 May 2014 12:33 pm

Tgt Ion: 61 Resp: 46627

Ion	Ratio	Lower	Upper
61	100		
63	31.1	24.0	36.0

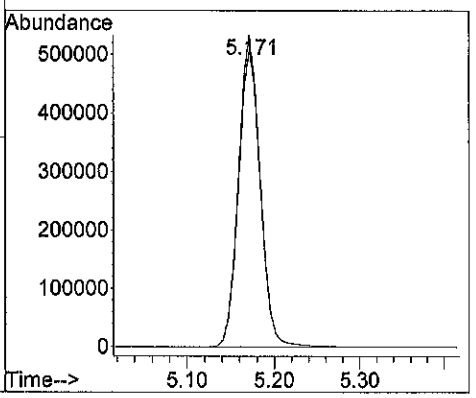




#29
Trichloroethene
Concen: 29.22 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0501013.d
Acq: 1 May 2014 12:33 pm

Tgt Ion:130 Resp: 925407

Ion	Ratio	Lower	Upper
130	100		
132	95.9	77.0	115.4



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501011.d
Acq On : 1 May 2014 11:46 am
Operator :
Sample : 04-198-04b
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 01 12:25:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

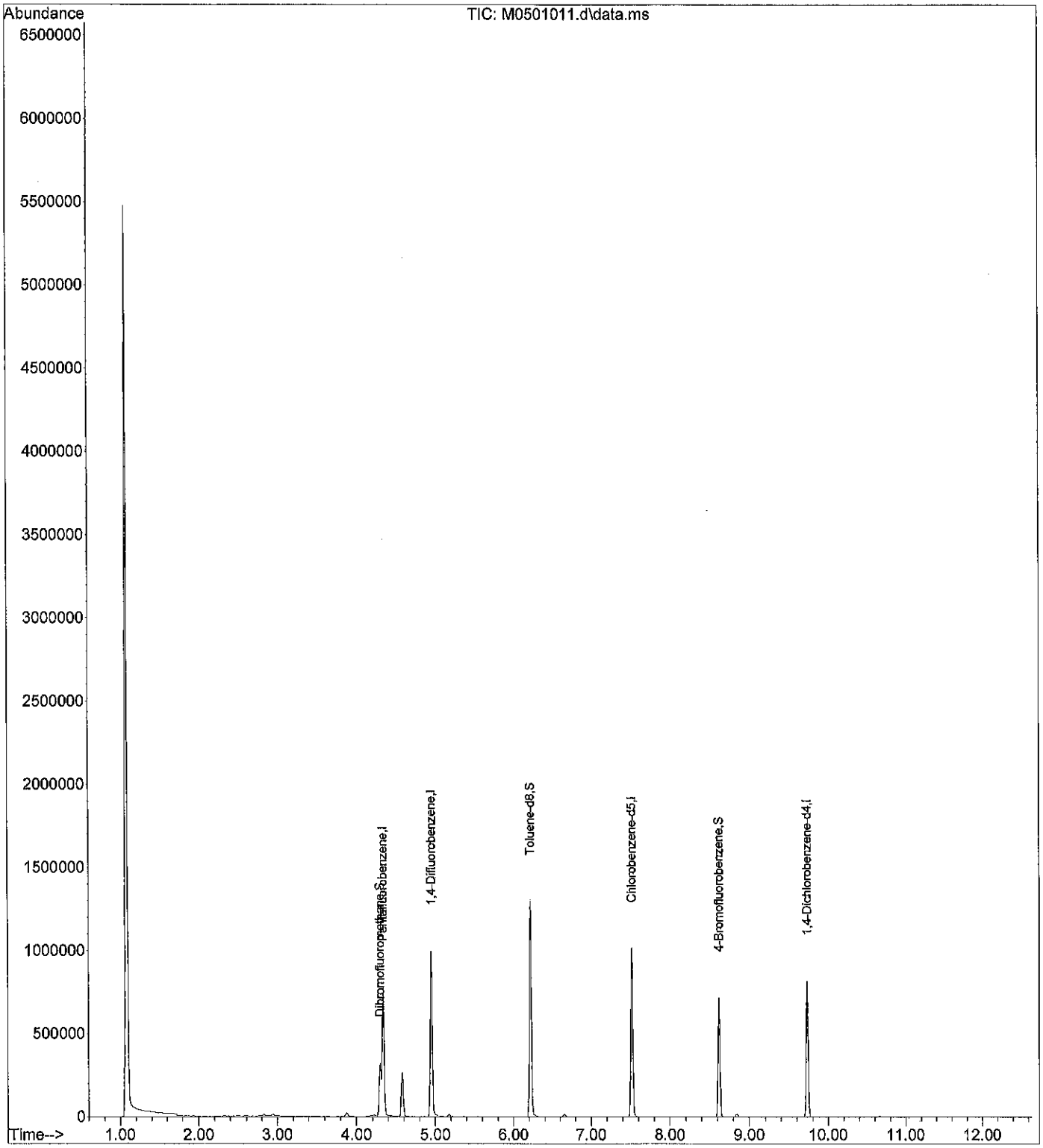
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	507832	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	732104	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	572691	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	230150	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	175800	9.57	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 95.70%			
36) Toluene-d8	6.220	98	802053	10.01	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.10%			
54) 4-Bromofluorobenzene	8.622	95	240031	9.76	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.60%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501011.d
Acq On : 1 May 2014 11:46 am
Operator :
Sample : 04-198-04b
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 01 12:25:24 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501012.d
Acq On : 1 May 2014 12:10 pm
Operator :
Sample : 04-198-05b
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 01 12:26:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

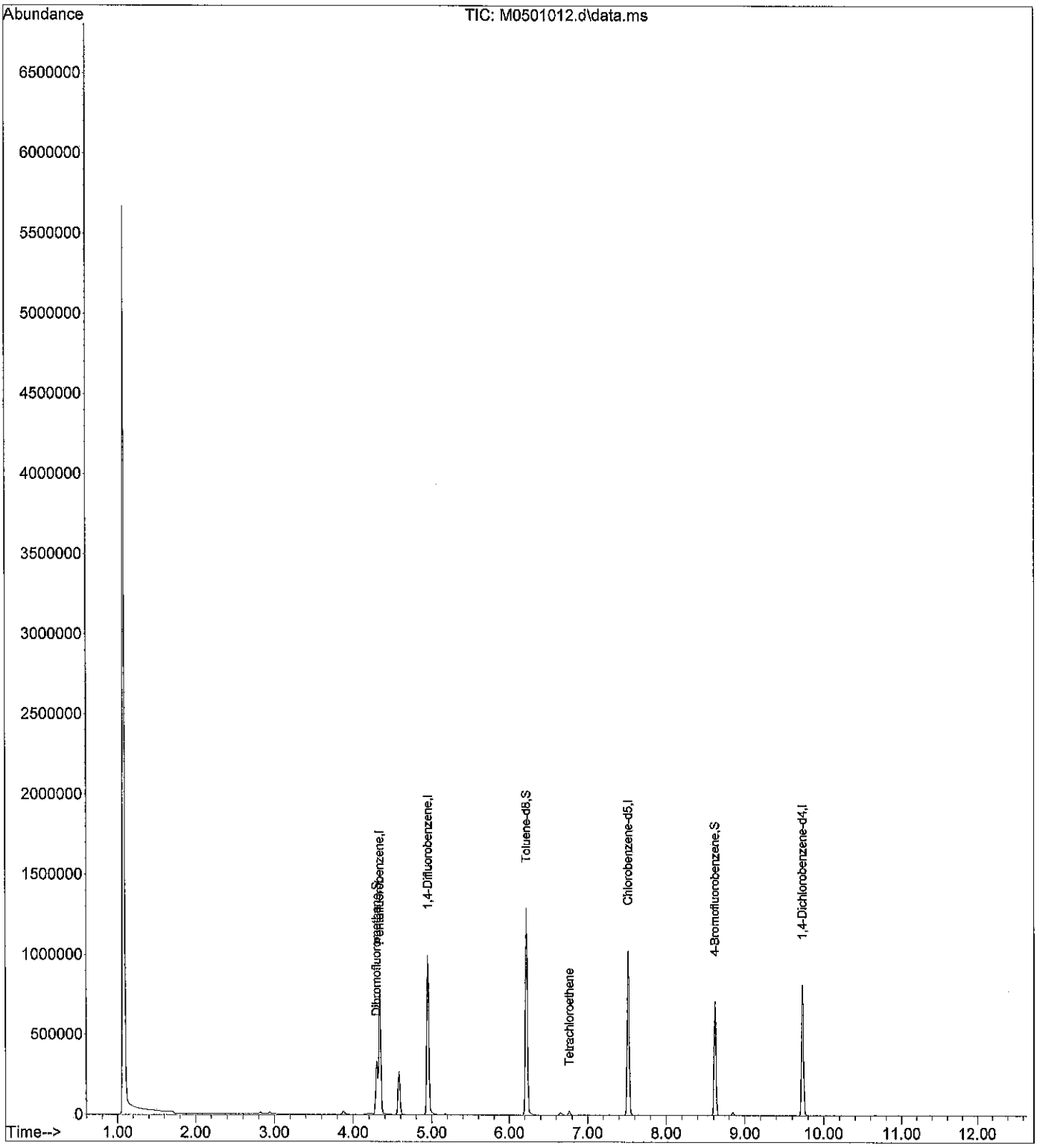
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	508277	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	741228	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	565811	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	231445	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	177016	9.62	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 96.20%			
36) Toluene-d8	6.220	98	795025	9.80	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 98.00%			
54) 4-Bromofluorobenzene	8.622	95	239515	9.85	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.50%			
Target Compounds						Qvalue
41) Tetrachloroethene	6.768	166	7721	0.23	ppb	95

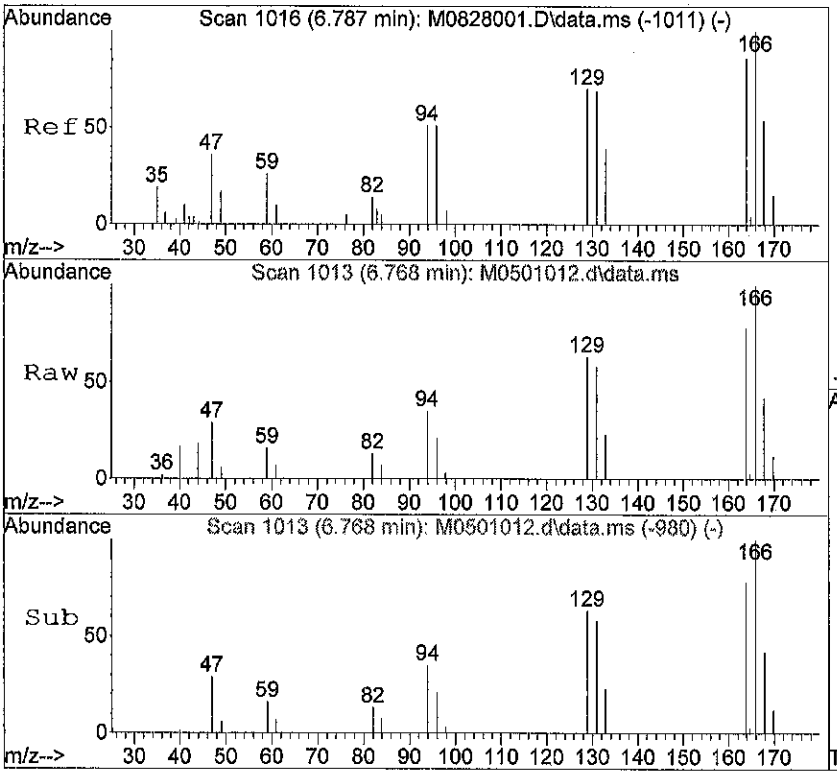
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501012.d
Acq On : 1 May 2014 12:10 pm
Operator :
Sample : 04-198-05b
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 01 12:26:18 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

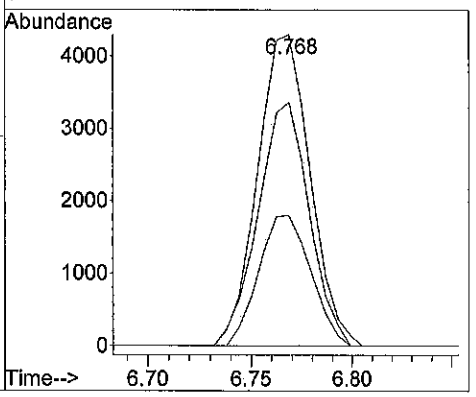




#41
Tetrachloroethene
Concen: 0.23 ppb
RT: 6.768 min Scan# 1013
Delta R.T. -0.001 min
Lab File: M0501012.d
Acq: 1 May 2014 12:10 pm

Tgt Ion:166 Resp: 7721

Ion	Ratio	Lower	Upper
166	100		
168	41.4	37.8	56.8
164	76.2	62.6	94.0



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501014.d
Acq On : 1 May 2014 12:57 pm
Operator :
Sample : 04-198-06b
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 01 13:24:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

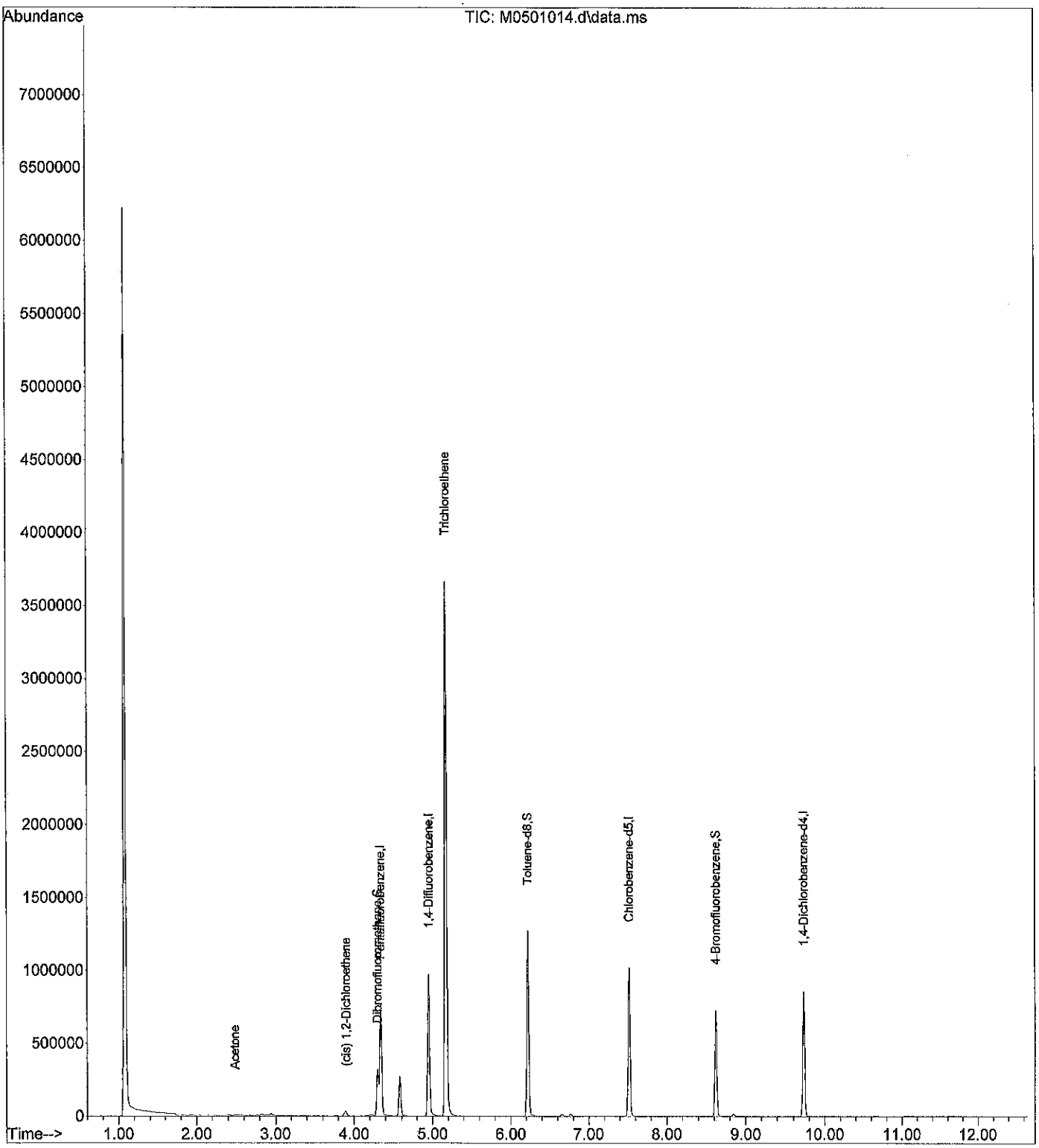
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	498409	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	721017	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	571912	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	240347	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	178224	9.88	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 98.80%			
36) Toluene-d8	6.220	98	792585	10.04	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.40%			
54) 4-Bromofluorobenzene	8.622	95	240278	9.78	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.80%			
Target Compounds						Qvalue
9) Acetone	2.489	43	2489	0.77	ppb	94
18) (cis) 1,2-Dichloroethene	3.897	61	13799	0.27	ppb	92
29) Trichloroethene	5.171	130	1172551	36.79	ppb	100

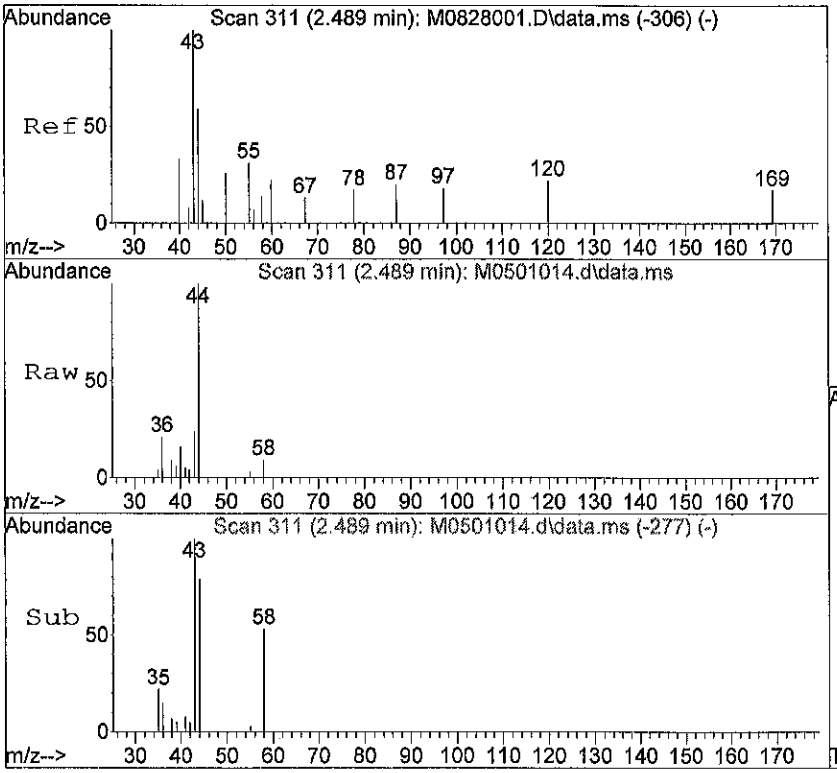
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501014.d
Acq On : 1 May 2014 12:57 pm
Operator :
Sample : 04-198-06b
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 01 13:24:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

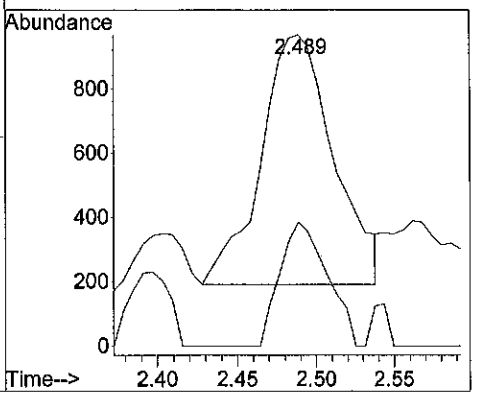


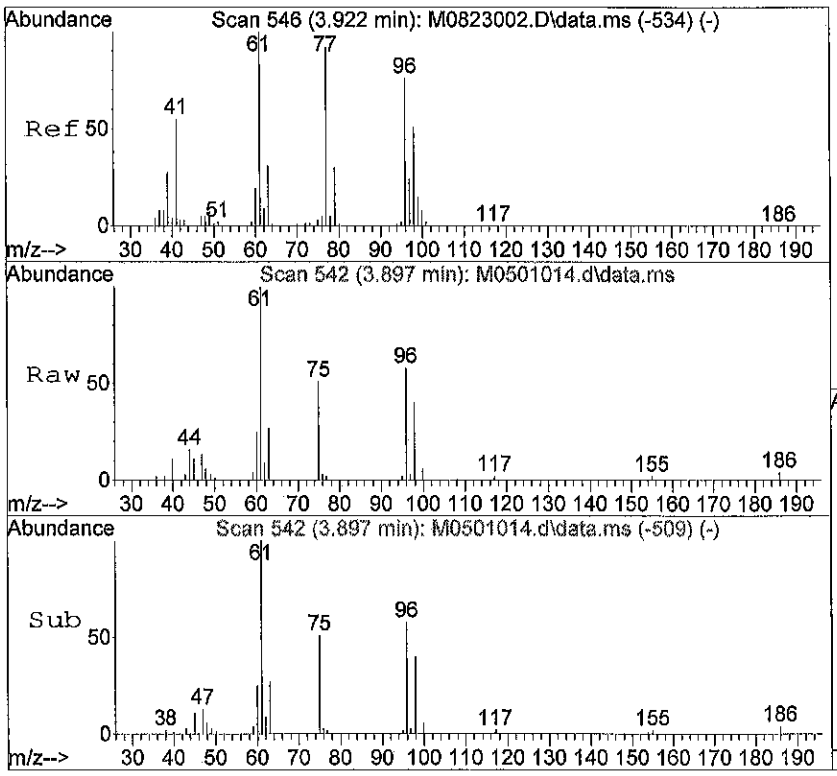


#9
Acetone
Concen: 0.77 ppb
RT: 2.489 min Scan# 311
Delta R.T. 0.006 min
Lab File: M0501014.d
Acq: 1 May 2014 12:57 pm

Tgt Ion: 43 Resp: 2489

Ion	Ratio	Lower	Upper
43	100		
58	32.3	28.6	43.0

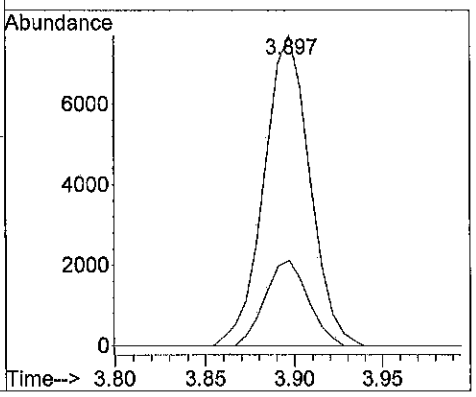


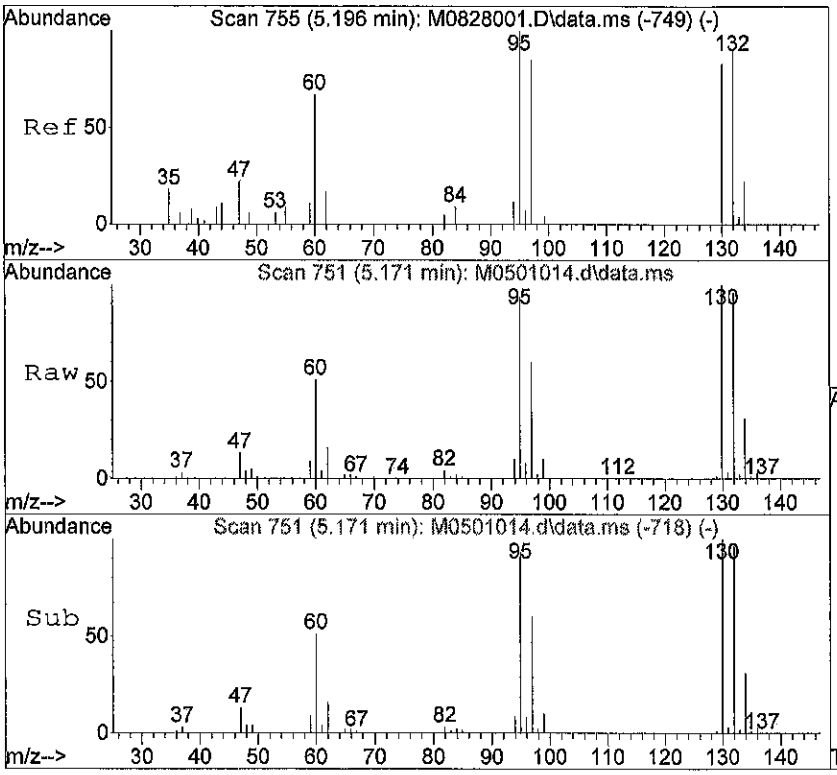


#18
(cis) 1,2-Dichloroethene
Concen: 0.27 ppb
RT: 3.897 min Scan# 542
Delta R.T. 0.000 min
Lab File: M0501014.d
Acq: 1 May 2014 12:57 pm

Tgt Ion: 61 Resp: 13799

Ion	Ratio	Lower	Upper
61	100		
63	25.8	24.0	36.0

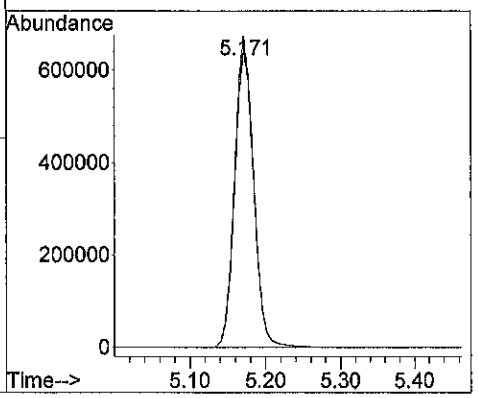




#29
Trichloroethene
Concen: 36.79 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0501014.d
Acq: 1 May 2014 12:57 pm

Tgt Ion:130 Resp: 1172551

Ion	Ratio	Lower	Upper
130	100		
132	96.0	77.0	115.4



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501009.d
Acq On : 1 May 2014 10:59 am
Operator :
Sample : 04-198-07b
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 01 11:13:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

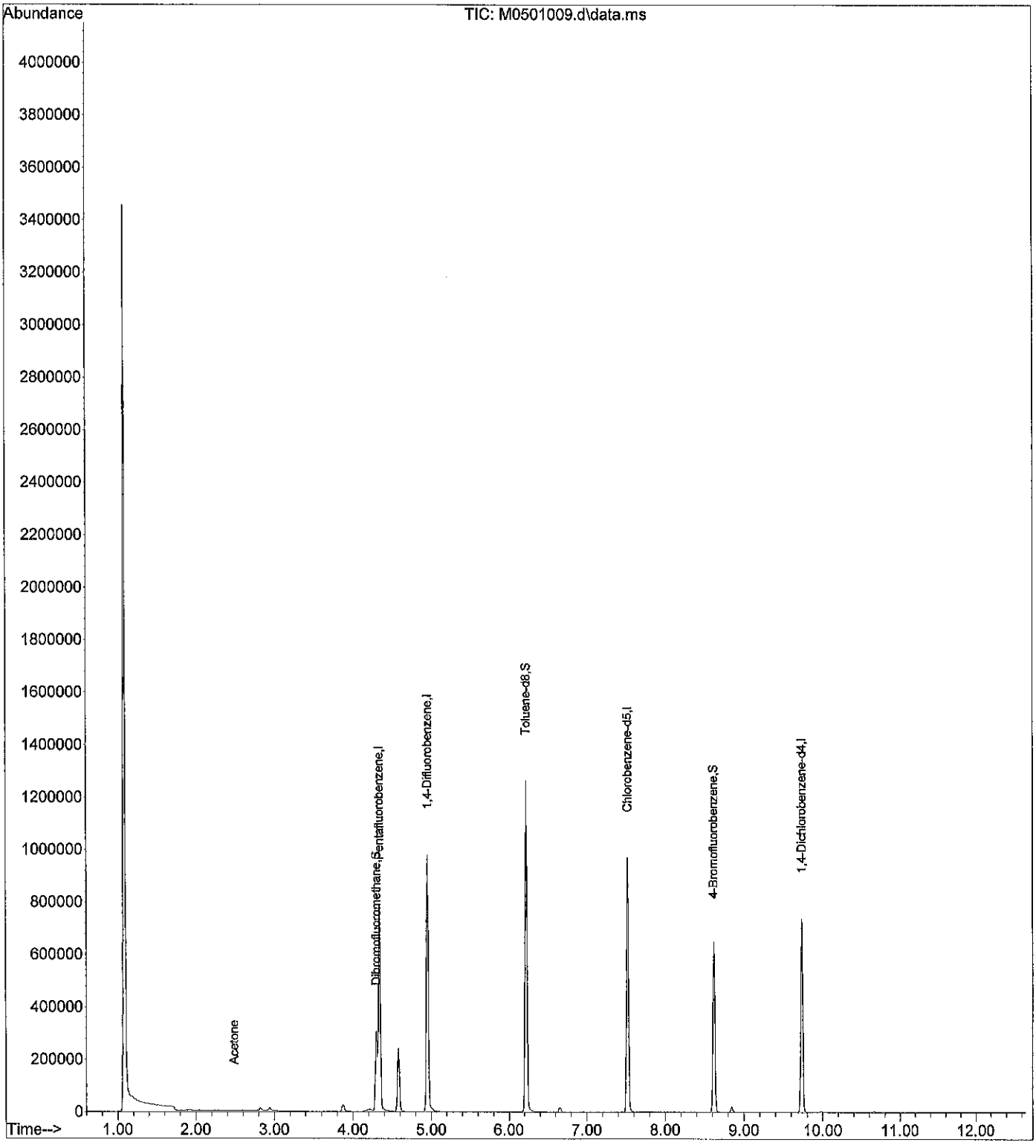
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	514621	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	735594	10.00	ppb	0.00
38) Chlorobenzene-d5	7.519	117	549446	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.732	152	211709	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	168804	9.07	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 90.70%			
36) Toluene-d8	6.220	98	792892	9.85	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 98.50%			
54) 4-Bromofluorobenzene	8.616	95	225189	9.54	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 95.40%			
Target Compounds						Qvalue
9) Acetone	2.489	43	2612	0.78	ppb	90

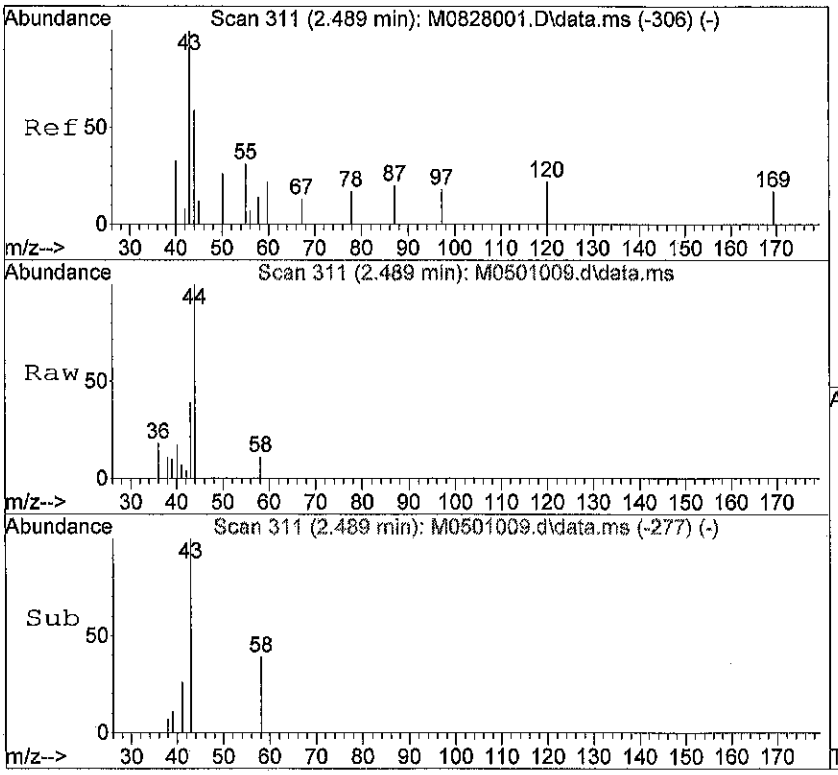
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501009.d
Acq On : 1 May 2014 10:59 am
Operator :
Sample : 04-198-07b
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 01 11:13:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

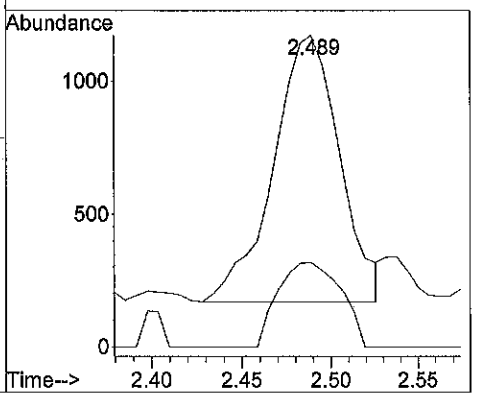




#9
Acetone
Concen: 0.78 ppb
RT: 2.489 min Scan# 311
Delta R.T. 0.006 min
Lab File: M0501009.d
Acq: 1 May 2014 10:59 am

Tgt Ion: 43 Resp: 2612

Ion	Ratio	Lower	Upper
43	100		
58	30.2	28.6	43.0



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501005.d
Acq On : 1 May 2014 9:17 am
Operator :
Sample : MB0501W1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 01 10:30:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

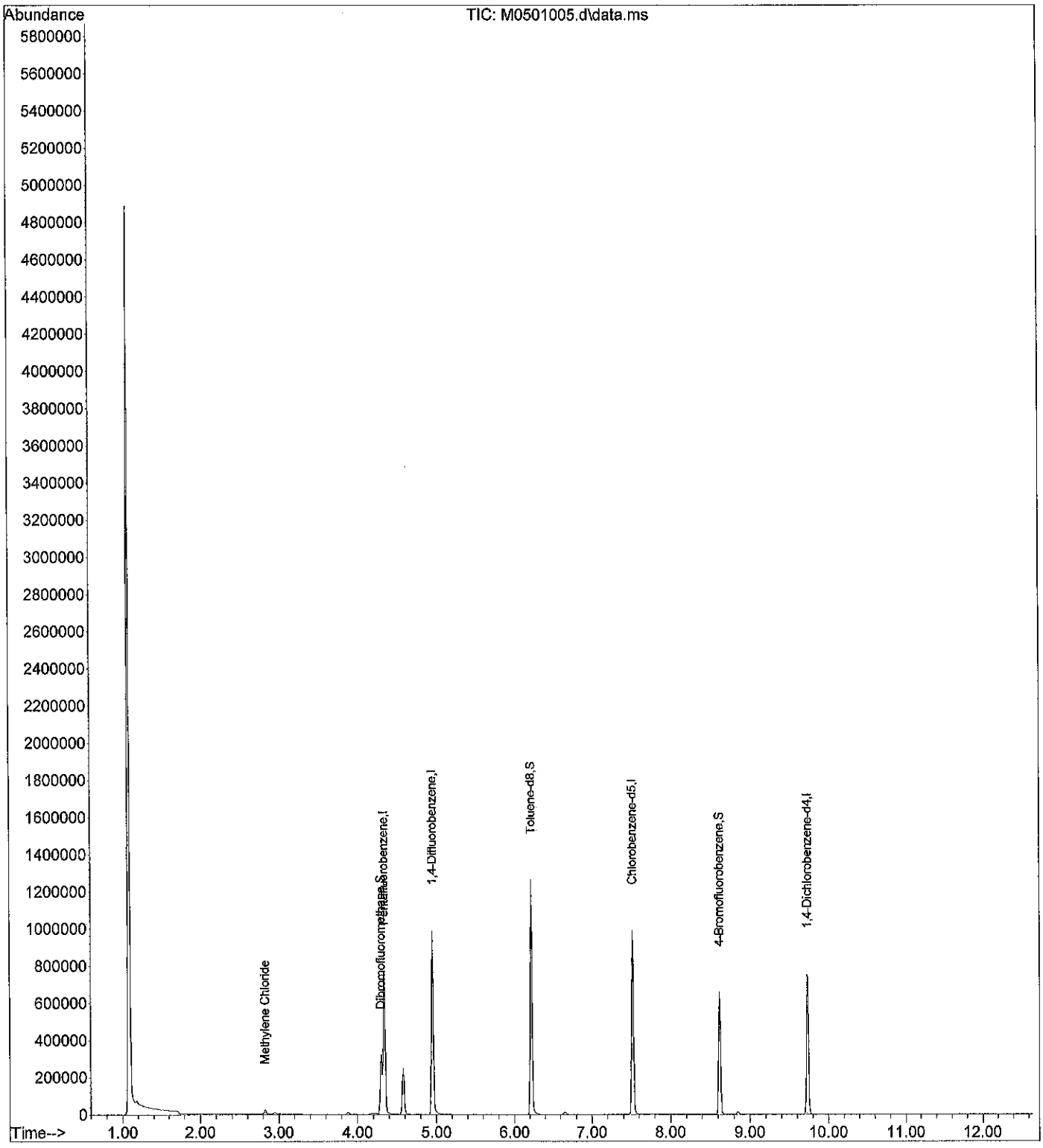
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	509176	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	720453	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	553393	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	213784	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	174716	9.48	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 94.80%			
36) Toluene-d8	6.220	98	783239	9.93	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.30%			
54) 4-Bromofluorobenzene	8.622	95	219426	9.23	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.30%			
Target Compounds						Qvalue
12) Methylene Chloride	2.824	49	13283	0.30	ppb	100

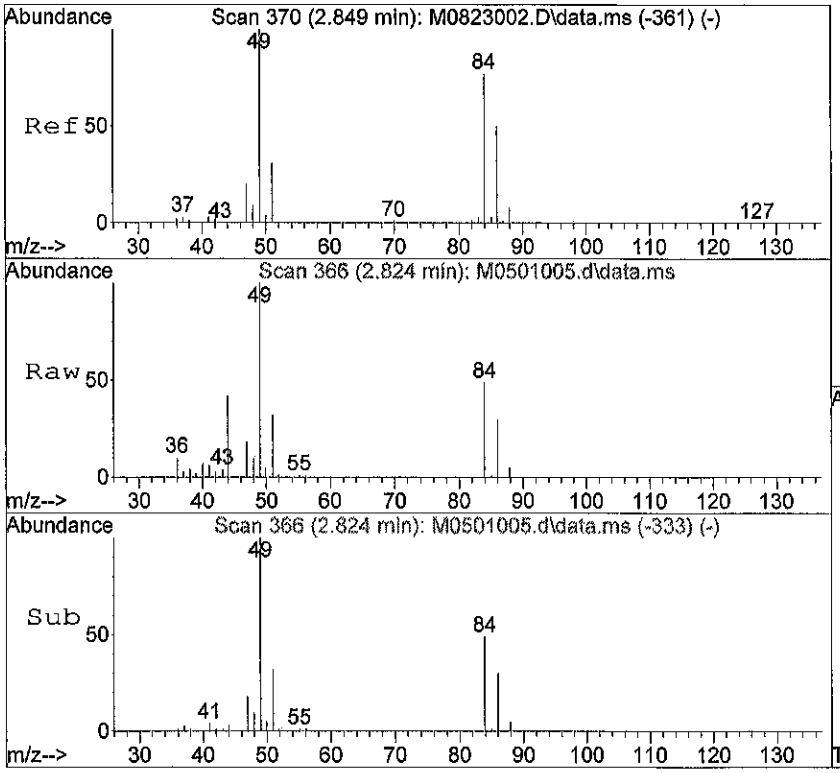
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501005.d
Acq On : 1 May 2014 9:17 am
Operator :
Sample : MB0501W1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 01 10:30:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

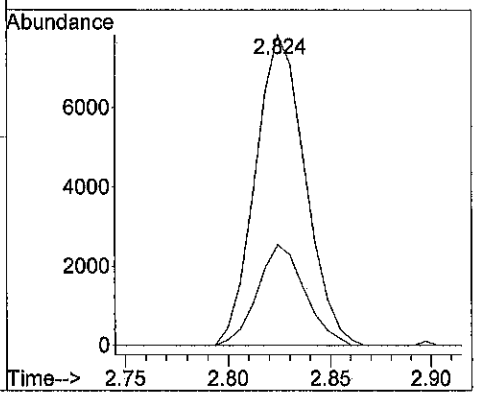




#12
Methylene Chloride
Concen: 0.30 ppb
RT: 2.824 min Scan# 366
Delta R.T. 0.000 min
Lab File: M0501005.d
Acq: 1 May 2014 9:17 am

Tgt Ion: 49 Resp: 13283

Ion	Ratio	Lower	Upper
49	100		
51	30.9	24.8	37.2



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501003.d
Acq On : 1 May 2014 8:31 am
Operator :
Sample : SB0501W1
Misc : V3-125-17
ALS Vial : 3 Sample Multiplier: 1

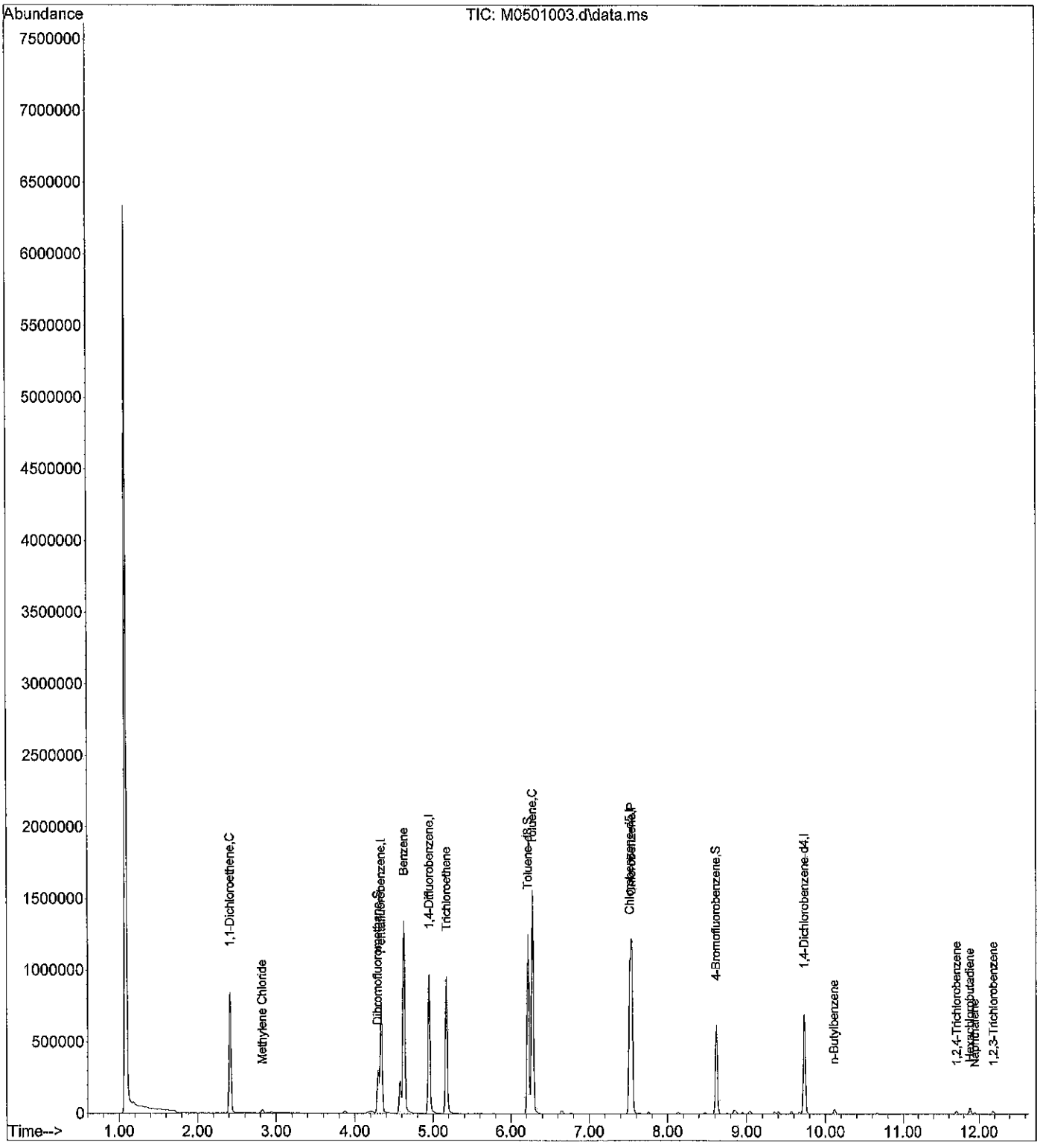
Quant Time: May 01 08:45:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	524083	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	736760	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	529054	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	194560	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.293	111	166956	8.80	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 88.00%			
36) Toluene-d8	6.220	98	787151	9.76	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 97.60%			
54) 4-Bromofluorobenzene	8.616	95	210378	9.26	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.60%			
Target Compounds						Qvalue
8) 1,1-Dichloroethene	2.416	61	540004	10.41	ppb	98
12) Methylene Chloride	2.824	49	13664	0.30	ppb	98
26) Benzene	4.629	78	1009555	9.70	ppb	100
29) Trichloroethene	5.171	130	313038	9.61	ppb	99
37) Toluene	6.275	91	1084826	9.71	ppb	99
46) Chlorobenzene	7.543	112	626938	10.65	ppb	99
70) n-Butylbenzene	10.109	91	13271	0.23	ppb	98
72) 1,2,4-Trichlorobenzene	11.707	180	6788	0.87	ppb	92
73) Hexachlorobutadiene	11.877	225	9408	1.26	ppb	98
74) Naphthalene	11.944	128	7101	1.32	ppb	99
75) 1,2,3-Trichlorobenzene	12.188	180	6934	1.39	ppb	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501003.d
Acq On : 1 May 2014 8:31 am
Operator :
Sample : SB0501W1
Misc : V3-125-17
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 01 08:45:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501004.d
Acq On : 1 May 2014 8:54 am
Operator :
Sample : SBD0501W1
Misc : V3-125-17
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 01 09:16:44 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

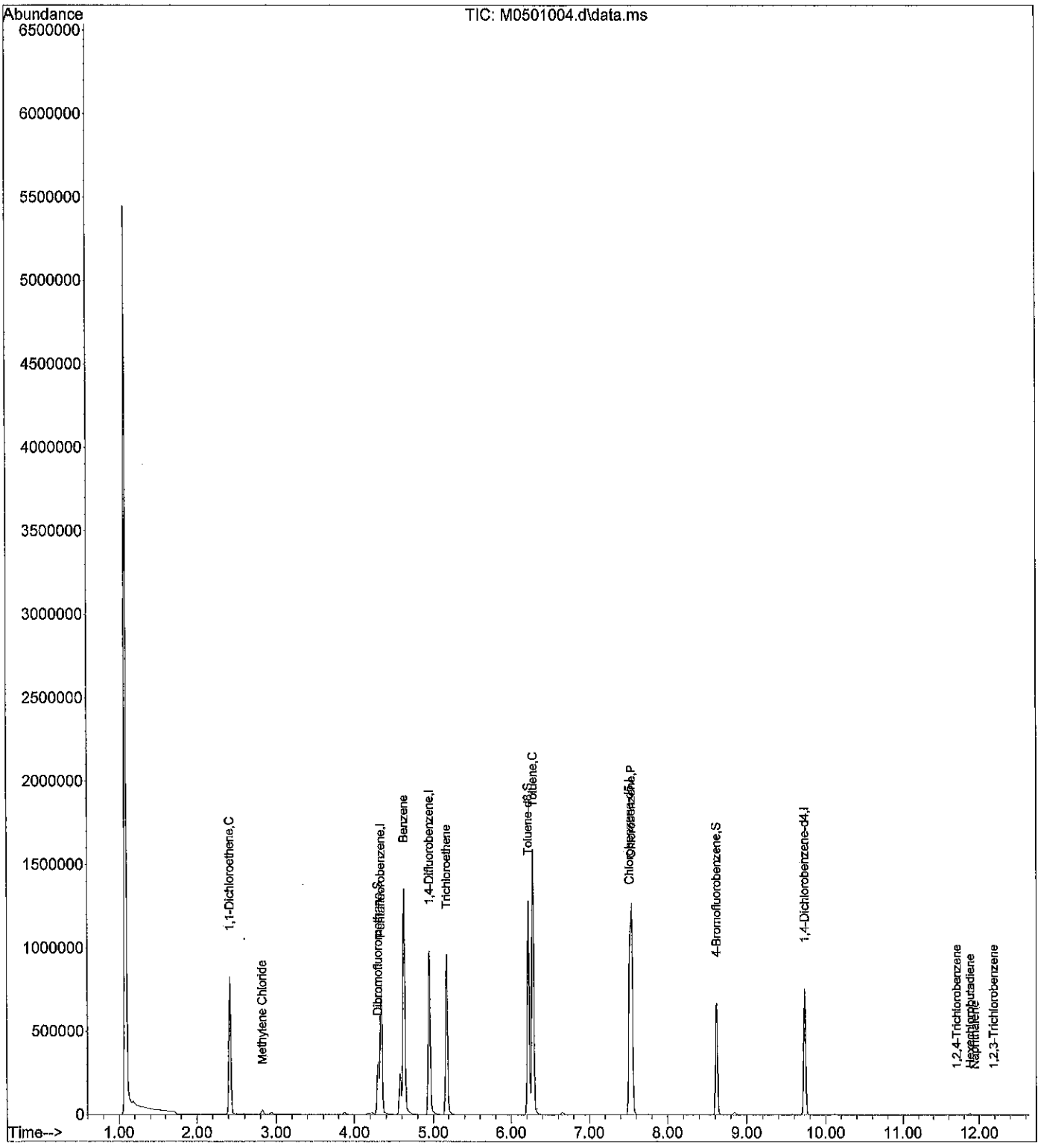
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	515554	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	733834	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	553906	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	213829	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	174227	9.34	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 93.40%				
36) Toluene-d8	6.220	98	794699	9.90	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.00%				
54) 4-Bromofluorobenzene	8.622	95	224258	9.42	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.20%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	531004	10.40	ppb		100
12) Methylene Chloride	2.824	49	13744	0.31	ppb		94
26) Benzene	4.629	78	1008596	9.85	ppb		100
29) Trichloroethene	5.171	130	305052	9.40	ppb		98
37) Toluene	6.281	91	1096425	9.86	ppb		100
46) Chlorobenzene	7.543	112	644950	10.46	ppb		100
72) 1,2,4-Trichlorobenzene	11.707	180	856	0.23	ppb	#	82
73) Hexachlorobutadiene	11.883	225	1791	0.22	ppb		92
74) Naphthalene	11.944	128	666	0.75	ppb	#	70
75) 1,2,3-Trichlorobenzene	12.188	180	1084	0.35	ppb	#	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501004.d
Acq On : 1 May 2014 8:54 am
Operator :
Sample : SBD0501W1
Misc : V3-125-17
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 01 09:16:44 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Compound List Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140429W.M
Title :
Last Update : Tue Apr 29 13:05:18 2014
Response Via : Initial Calibration

Total Cpnds : 75

PK#	Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1 I	Pentafluorobenzene	168	4.336	1.000	A	0	A	B
2	Dichlorodifluoromethane	85	1.209	0.279	L	1	A	B
3 P	Chloromethane	50	1.343	0.310	A	1	A	B
4 C	Vinyl Chloride	62	1.428	0.329	A	1	A	B
5	Bromomethane	96	1.690	0.390	A	1	A	B
6	Chloroethane	64	1.769	0.408	A	1	A	B
7	Trichlorofluoromethane	101	1.977	0.456	A	1	A	B
8 C	1,1-Dichloroethene	61	2.416	0.557	A	1	A	B
9	Acetone	43	2.483	0.573	A	1	A	B
10	Iodomethane	142	2.538	0.585	L	1	A	B
11	Carbon Disulfide	76	2.592	0.598	A	1	A	B
12	Methylene Chloride	49	2.824	0.651	A	1	A	B
13	(trans) 1,2-Dichloroethene	61	3.056	0.705	A	1	A	B
14	Methyl t-Butyl Ether	73	3.068	0.708	A	3	A	B
15 P	1,1-Dichloroethane	63	3.409	0.786	A	1	A	B
16	Vinyl Acetate	43	3.464	0.799	L	1	A	B
17	2,2-Dichloropropane	77	3.897	0.899	A	1	A	B
18	(cis) 1,2-Dichloroethene	61	3.897	0.899	A	1	A	B
19	2-Butanone	43	3.928	0.906	A	1	A	B
20	Bromochloromethane	130	4.098	0.945	A	3	A	B
21 C	Chloroform	83	4.165	0.961	A	1	A	B
22	1,1,1-Trichloroethane	97	4.318	0.996	A	1	A	B
23 S	Dibromofluoromethane	111	4.299	0.991	A	1	A	B
24	Carbon Tetrachloride	117	4.458	1.028	A	1	A	B
25	1,1-Dichloropropene	75	4.452	1.027	A	1	A	B
26	Benzene	78	4.629	1.068	A	1	A	B
27	1,2-Dichloroethane	62	4.641	1.070	A	1	A	B
28 I	1,4-Difluorobenzene	114	4.952	1.000	A	0	A	B
29	Trichloroethene	130	5.171	1.044	A	1	A	B
30 C	1,2-Dichloropropane	63	5.360	1.082	A	1	A	B
31	Dibromomethane	174	5.464	1.103	A	2	A	B
32	Bromodichloromethane	83	5.598	1.130	A	1	A	B
33	2-Chloroethyl Vinyl Ether	63	5.860	1.183	L	1	A	B
34	(cis) 1,3-Dichloropropene	75	5.982	1.208	A	1	A	B
35	Methyl Isobutyl Ketone	43	6.122	1.236	A	3	A	B
36 S	Toluene-d8	98	6.220	1.256	A	1	A	B
37 C	Toluene	91	6.281	1.268	A	1	A	B
38 I	Chlorobenzene-d5	117	7.518	1.000	A	1	A	B
39	(trans) 1,3-Dichloropropene	75	6.470	0.861	A	1	A	B
40	1,1,2-Trichloroethane	97	6.634	0.882	A	1	A	B
41	Tetrachloroethene	166	6.769	0.900	A	2	A	B
42	1,3-Dichloropropane	76	6.787	0.903	A	1	A	B
43	2-Hexanone	43	6.866	0.913	A	3	A	B
44	Dibromochloromethane	129	6.988	0.930	A	2	A	B
45	1,2-Dibromoethane	107	7.092	0.943	A	1	A	B
46 P	Chlorobenzene	112	7.543	1.003	A	1	A	B
47	1,1,1,2-Tetrachloroethane	133	7.616	1.013	A	2	A	B
48 C	Ethylbenzene	91	7.646	1.017	A	1	A	B
49	m,p-Xylene	91	7.756	1.032	A	1	A	B
50	o-Xylene	91	8.128	1.081	A	1	A	B
51	Styrene	104	8.140	1.083	A	0	A	B
52 P	Bromoform	173	8.311	1.105	A	2	A	B
53	Isopropylbenzene	105	8.475	1.127	A	1	A	B
54 S	4-Bromofluorobenzene	95	8.616	1.146	A	2	A	B

55 I	1,4-Dichlorobenzene-d4	152	9.731	1.000	A	1	A	B
56	Bromobenzene	156	8.762	0.900	A	1	A	B
57 P	1,1,2,2-Tetrachloroethane	83	8.762	0.900	A	1	A	B
58	1,2,3-Trichloropropane	75	8.799	0.904	A	1	A	B
59	n-Propylbenzene	91	8.872	0.912	A	1	A	B
60	2-Chlorotoluene	126	8.951	0.920	A	1	A	B
61	4-Chlorotoluene	126	9.055	0.931	A	1	A	B
62	1,3,5-Trimethylbenzene	105	9.042	0.929	A	1	A	B
63	tert-Butylbenzene	119	9.353	0.961	A	1	A	B
64	1,2,4-Trimethylbenzene	105	9.402	0.966	A	1	A	B
65	sec-Butylbenzene	105	9.567	0.983	A	1	A	B
66	1,3-Dichlorobenzene	146	9.670	0.994	A	1	A	B
67	p-Isopropyltoluene	119	9.713	0.998	A	1	A	B
68	1,4-Dichlorobenzene	146	9.756	1.003	A	1	A	B
69	1,2-Dichlorobenzene	146	10.115	1.039	A	1	A	B
70	n-Butylbenzene	91	10.109	1.039	A	1	A	B
71	1,2-Dibromo-3-chloropropane	157	10.884	1.118	A	2	A	B
72	1,2,4-Trichlorobenzene	180	11.700	1.202	L	2	A	B
73	Hexachlorobutadiene	225	11.877	1.221	A	2	A	B
74	Naphthalene	128	11.944	1.227	L	1	A	B
75	1,2,3-Trichlorobenzene	180	12.182	1.252	L	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

M140429W.M Tue Apr 29 14:15:54 2014

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140429W.M
Title :
Last Update : Tue Apr 29 13:05:18 2014
Response Via : Initial Calibration

Calibration Files
.2 =M0429003.d 1 =M0429004.d 2 =M0429005.d 5 =M0429006.d 10 =M0429007.d 25 =M0429008.d
50 =M0429010.d .1 =M0716005.d

		Compound	.2	1	2	5	10	25	50	.1	Avg	%RSD
		ISTD										
1)	I	Pentafluorobenzene									0.490#	27.98
2)		Dichlorodifluo...	0.344	0.372	0.518	0.429	0.420	0.685	0.663		0.920	11.01
3)	P	Chloromethane	0.896	0.816	0.926	0.846	0.839	1.063	1.052		0.820#	10.68#
4)	C	Vinyl Chloride	0.743	0.733	0.835	0.782	0.771	0.959	0.915		0.434#	11.99
5)		Bromomethane	0.540	0.448	0.421	0.396	0.380	0.433	0.419		0.440#	6.83
6)		Chloroethane	0.486	0.410	0.422	0.425	0.418	0.476	0.442		0.939#	4.33
7)		Trichlorofluor...	0.960	0.914	0.903	0.910	0.904	1.005	0.973		0.990#	4.67#
8)	C	1,1-Dichloroet...	1.031	0.933	0.982	0.958	0.951	1.056	1.020		0.065#	14.62
9)		Acetone		0.075	0.078	0.060	0.059	0.059	0.057		0.655#	20.94
10)		Iodomethane		0.451	0.550	0.647	0.691	0.811	0.780		1.616#	6.84
11)		Carbon Disulfide	1.638	1.520	1.549	1.568	1.510	1.794	1.734		0.862#	4.48
12)		Methylene Chlo...		0.919	0.856	0.809	0.844	0.892	0.850		1.012#	3.92
13)		(trans) 1,2-Di...	1.054	0.980	0.981	1.004	0.965	1.062	1.042		0.635#	4.12
14)		Methyl t-Butyl...	0.618	0.615	0.621	0.628	0.618	0.677	0.669		1.144	3.56
15)	P	1,1-Dichloroet...	1.206	1.116	1.126	1.108	1.106	1.190	1.152		0.524#	20.77
16)		Vinyl Acetate		0.475	0.431	0.386	0.569	0.644	0.637		0.689#	7.40
17)		2,2-Dichloropr...	0.800	0.657	0.666	0.680	0.658	0.697	0.665		1.036#	4.03
18)		(cis) 1,2-Dich...	1.104	1.022	0.991	0.999	1.013	1.076	1.046		0.105#	6.65
19)		2-Butanone		0.118	0.105	0.100	0.103	0.104	0.098		0.240#	4.52
20)		Bromochloromet...	0.220	0.237	0.237	0.249	0.240	0.254	0.246		0.862#	2.39#
21)	C	Chloroform	0.838	0.850	0.847	0.871	0.854	0.899	0.872		0.831#	4.03
22)		1,1,1-Trichlor...	0.874	0.789	0.808	0.824	0.803	0.870	0.847		0.362#	1.52
23)	S	Dibromofluorom...	0.355	0.371	0.356	0.365	0.360	0.366	0.360		0.789#	2.65
24)		Carbon Tetrach...	0.789	0.778	0.766	0.796	0.767	0.823	0.806		0.726#	4.61
25)		1,1-Dichloropr...	0.783	0.708	0.681	0.721	0.710	0.754	0.728		1.986#	2.32
26)		Benzene	2.041	1.977	1.928	1.964	1.943	2.049	1.997		0.498#	2.94
27)		1,2-Dichloroet...	0.479	0.511	0.481	0.496	0.498	0.519	0.504			
		ISTD										
28)	I	1,4-Difluorobenzene									0.442#	3.82
29)		Trichloroethene	0.472	0.435	0.426	0.455	0.423	0.444	0.438		0.380#	4.26#
30)	C	1,2-Dichloropr...	0.360	0.361	0.374	0.382	0.384	0.401	0.398		0.137#	4.77
31)		Dibromomethane	0.130	0.133	0.130	0.142	0.137	0.148	0.140		0.361#	6.37
32)		Bromodichlorom...	0.325	0.338	0.359	0.373	0.363	0.388	0.382		0.003#	32.30
33)		2-Chloroethyl ...			0.002	0.003	0.003	0.004	0.004		0.379#	8.55
34)		(cis) 1,3-Dich...	0.325	0.357	0.363	0.389	0.390	0.416	0.410		0.134#	6.79
35)		Methyl Isobuty...	0.127	0.131	0.128	0.123	0.137	0.148	0.143		1.094#	0.77
36)	S	Toluene-d8	1.092	1.097	1.083	1.099	1.083	1.102	1.104		1.516#	3.51#
37)	C	Toluene	1.583	1.451	1.480	1.497	1.473	1.576	1.550			

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140429W.M
Title :

			ISTD								
38)	I	Chlorobenzene-d5								0.333#	6.45
39)		(trans) 1,3-Di...	0.312	0.313	0.307	0.338	0.348	0.356	0.354	0.206#	2.44
40)		1,1,2-Trichlor...	0.202	0.197	0.208	0.209	0.208	0.211	0.209	0.592#	4.92
41)		Tetrachloroethene	0.653	0.570	0.566	0.595	0.582	0.595	0.583	0.356#	2.50
42)		1,3-Dichloropr...	0.354	0.337	0.357	0.360	0.357	0.366	0.360	0.114#	8.28
43)		2-Hexanone	0.095	0.110	0.114	0.115	0.118	0.124	0.119	0.280#	5.51
44)		Dibromochlorom...	0.275	0.255	0.270	0.280	0.286	0.298	0.299	0.184#	4.13
45)		1,2-Dibromoethane	0.172	0.177	0.183	0.190	0.187	0.193	0.189	1.113	1.37
46)	P	Chlorobenzene	1.109	1.088	1.105	1.122	1.106	1.131	1.128	0.364#	4.97
47)		1,1,1,2-Tetrac...	0.349	0.336	0.356	0.372	0.370	0.383	0.384	2.126#	4.10#
48)	C	Ethylbenzene	2.133	1.989	2.050	2.125	2.127	2.238	2.219	1.582#	4.29
49)		m,p-Xylene	1.562	1.471	1.524	1.601	1.607	1.655	1.655	1.449#	5.08
50)		o-Xylene	1.406	1.322	1.413	1.469	1.478	1.527	1.525	1.115#	7.92
51)		Styrene	0.978	1.010	1.112	1.150	1.174	1.202	1.182	0.149	8.44
52)	P	Bromoform	0.129	0.136	0.148	0.149	0.155	0.161	0.163	1.839#	5.78
53)		Isopropylbenzene	1.687	1.739	1.782	1.853	1.897	1.968	1.944	0.430#	2.12
54)	S	4-Bromofluorob...	0.413	0.429	0.441	0.434	0.430	0.436	0.424		
			ISTD								
55)	I	1,4-Dichlorobenzen...								0.949#	3.89
56)		Bromobenzene	1.026	0.932	0.911	0.934	0.933	0.947	0.958	0.399	4.07
57)	P	1,1,2,2-Tetrac...	0.382	0.391	0.387	0.388	0.410	0.420	0.418	0.321#	4.47
58)		1,2,3-Trichlor...	0.343	0.339	0.308	0.305	0.321	0.316	0.319	5.027#	5.36
59)		n-Propylbenzene	5.443	4.757	4.678	4.924	4.997	5.194	5.195	1.015#	2.42
60)		2-Chlorotoluene	0.998	0.986	1.010	0.997	1.022	1.048	1.046	1.008#	2.04
61)		4-Chlorotoluene	1.044	1.002	0.985	0.995	0.992	1.021	1.017	3.759#	3.97
62)		1,3,5-Trimethy...	3.798	3.557	3.571	3.744	3.794	3.920	3.927	2.981#	3.95
63)		tert-Butylbenzene	2.974	2.880	2.824	2.921	3.011	3.106	3.150	3.490#	4.86
64)		1,2,4-Trimethy...	3.405	3.221	3.352	3.534	3.580	3.667	3.671	4.208#	4.13
65)		sec-Butylbenzene	4.117	3.959	4.085	4.165	4.304	4.396	4.430	1.651#	1.97
66)		1,3-Dichlorobe...	1.621	1.644	1.621	1.624	1.667	1.682	1.701	3.402#	6.10
67)		p-Isopropyltol...	3.277	3.140	3.181	3.418	3.522	3.632	3.643	1.714#	2.98
68)		1,4-Dichlorobe...	1.768	1.653	1.639	1.700	1.734	1.748	1.756	1.213#	4.94
69)		1,2-Dichlorobe...	1.146	1.136	1.189	1.209	1.271	1.253	1.288	3.009#	5.85
70)		n-Butylbenzene	3.059	2.824	2.742	2.965	3.078	3.178	3.214	0.062#	6.07
71)		1,2-Dibromo-3-...		0.058	0.061	0.059	0.064	0.065	0.068	0.415#	15.45
72)		1,2,4-Trichlor...	0.326	0.370	0.372	0.405	0.457	0.470	0.504	0.384#	8.26
73)		Hexachlorobuta...	0.390	0.336	0.350	0.377	0.407	0.415	0.415	0.465#	24.48
74)		Naphthalene		0.323	0.365	0.419	0.525	0.543	0.616	0.244#	20.41
75)		1,2,3-Trichlor...	0.173	0.208	0.208	0.242	0.283	0.285	0.307		

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429003.d
Acq On : 29 Apr 2014 8:22 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 29 08:35:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	550254	10.00 ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	768647	10.00 ppb		0.00
38) Chlorobenzene-d5	7.518	117	575048	10.00 ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	223845	10.00 ppb		0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	195561	7.80 ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 78.00%			
36) Toluene-d8	6.220	98	839631	9.27 ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 92.70%			
54) 4-Bromofluorobenzene	8.616	95	237535	9.31 ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	3783	0.09 ppb		93
3) Chloromethane	1.343	50	9858	0.15 ppb		96
4) Vinyl Chloride	1.428	62	8172	0.15 ppb		94
5) Bromomethane	1.684	96	5948	0.23 ppb		90
6) Chloroethane	1.770	64	5352	0.19 ppb		93
7) Trichlorofluoromethane	1.977	101	10566	0.18 ppb		94
8) 1,1-Dichloroethene	2.416	61	11345	0.18 ppb		100
9) ~~Acetone~~	2.483	43	1501	Below Cal	#	82
10) ~~Iodomethane~~	2.538	142	3216	0.46 ppb		95
11) Carbon Disulfide	2.593	76	18022	0.18 ppb		96
12) ~~Methylene~~ Chloride	2.824	49	14552	0.27 ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	11604	0.18 ppb		96
14) Methyl t-Butyl Ether	3.068	73	6805	0.17 ppb		98
15) 1,1-Dichloroethane	3.409	63	13275	0.18 ppb		99
16) ~~Vinyl Acetate~~	3.458	43	7001	0.23 ppb	#	93
17) 2,2-Dichloropropane	3.891	77	8808	0.19 ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	12148	0.18 ppb		97
19) ~~2-Butanone~~	3.922	43	1405	0.21 ppb	#	53
20) Bromochloromethane SD 4, 2014	4.098	130	2423	0.17 ppb		94
21) Chloroform	4.165	83	9222	0.16 ppb		98
22) 1,1,1-Trichloroethane	4.312	97	9618	0.17 ppb	#	1
24) Carbon Tetrachloride	4.452	117	8682	0.17 ppb		94
25) 1,1-Dichloropropene	4.452	75	8622	0.18 ppb		100
26) Benzene	4.629	78	22458	0.18 ppb		98
27) 1,2-Dichloroethane	4.641	62	5275	0.15 ppb		97
29) Trichloroethene	5.171	130	7253	0.21 ppb		95
30) 1,2-Dichloropropane	5.360	63	5527	0.18 ppb		92
31) Dibromomethane	5.464	174	2001	0.20 ppb		92
32) Bromodichloromethane	5.598	83	4994	0.16 ppb		99
34) (cis) 1,3-Dichloropropene	5.982	75	4996	0.16 ppb		100
35) Methyl Isobutyl Ketone	6.122	43	1952	0.17 ppb	#	83
37) Toluene	6.275	91	24335	0.19 ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	3589	0.18 ppb		99
40) 1,1,2-Trichloroethane	6.634	97	2328	0.19 ppb		97
41) Tetrachloroethene	6.769	166	7509	0.24 ppb		97
42) 1,3-Dichloropropane	6.787	76	4070	0.19 ppb		90
43) 2-Hexanone	6.866	43	1091	0.15 ppb	#	75
44) Dibromochloromethane	6.988	129	3159	0.20 ppb		97
45) 1,2-Dibromoethane	7.092	107	1974	0.19 ppb		94

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429003.d
Acq On : 29 Apr 2014 8:22 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 29 08:35:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) Chlorobenzene	7.543	112	12758	0.20	ppb		97
47) 1,1,1,2-Tetrachloroethane	7.622	133	4013	0.19	ppb		97
48) Ethylbenzene	7.646	91	24532	0.20	ppb		100
49) m,p-Xylene	7.756	91	35923	0.38	ppb		99
50) o-Xylene	8.128	91	16172	0.19	ppb		99
51) Styrene	8.140	104	11244	0.18	ppb		100
52) Bromoform	8.311	173	1482	0.19	ppb		93
53) Isopropylbenzene	8.476	105	19403	0.18	ppb		100
56) Bromobenzene	8.762	156	4592	0.23	ppb		97
57) 1,1,2,2-Tetrachloroethane	8.762	83	1708	0.17	ppb		96
58) 1,2,3-Trichloropropane	8.799	75	1535	0.20	ppb	#	100
59) n-Propylbenzene	8.872	91	24366	0.20	ppb		95
60) 2-Chlorotoluene	8.951	126	4468	0.19	ppb		98
61) 4-Chlorotoluene	9.055	126	4673	0.21	ppb		98
62) 1,3,5-Trimethylbenzene	9.043	105	17004	0.20	ppb		97
63) tert-Butylbenzene	9.353	119	13315	0.20	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	15244	0.19	ppb		98
65) sec-Butylbenzene	9.567	105	18431	0.19	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	7255	0.21	ppb		97
67) p-Isopropyltoluene	9.713	119	14673	0.19	ppb		96
68) 1,4-Dichlorobenzene	9.756	146	7914	0.22	ppb		88
69) 1,2-Dichlorobenzene	10.115	146	5130	0.20	ppb		96
70) n-Butylbenzene	10.109	91	13696	0.20	ppb		97
72) 1,2,4-Trichlorobenzene	11.707	180	1460	0.21	ppb		98
73) Hexachlorobutadiene	11.877	225	1745	0.27	ppb		93
74) ~~Naphthalene~~	11.944	128	1123	0.13	ppb	#	70
75) 1,2,3-Trichlorobenzene	12.188	180	773	0.30	ppb	#	77

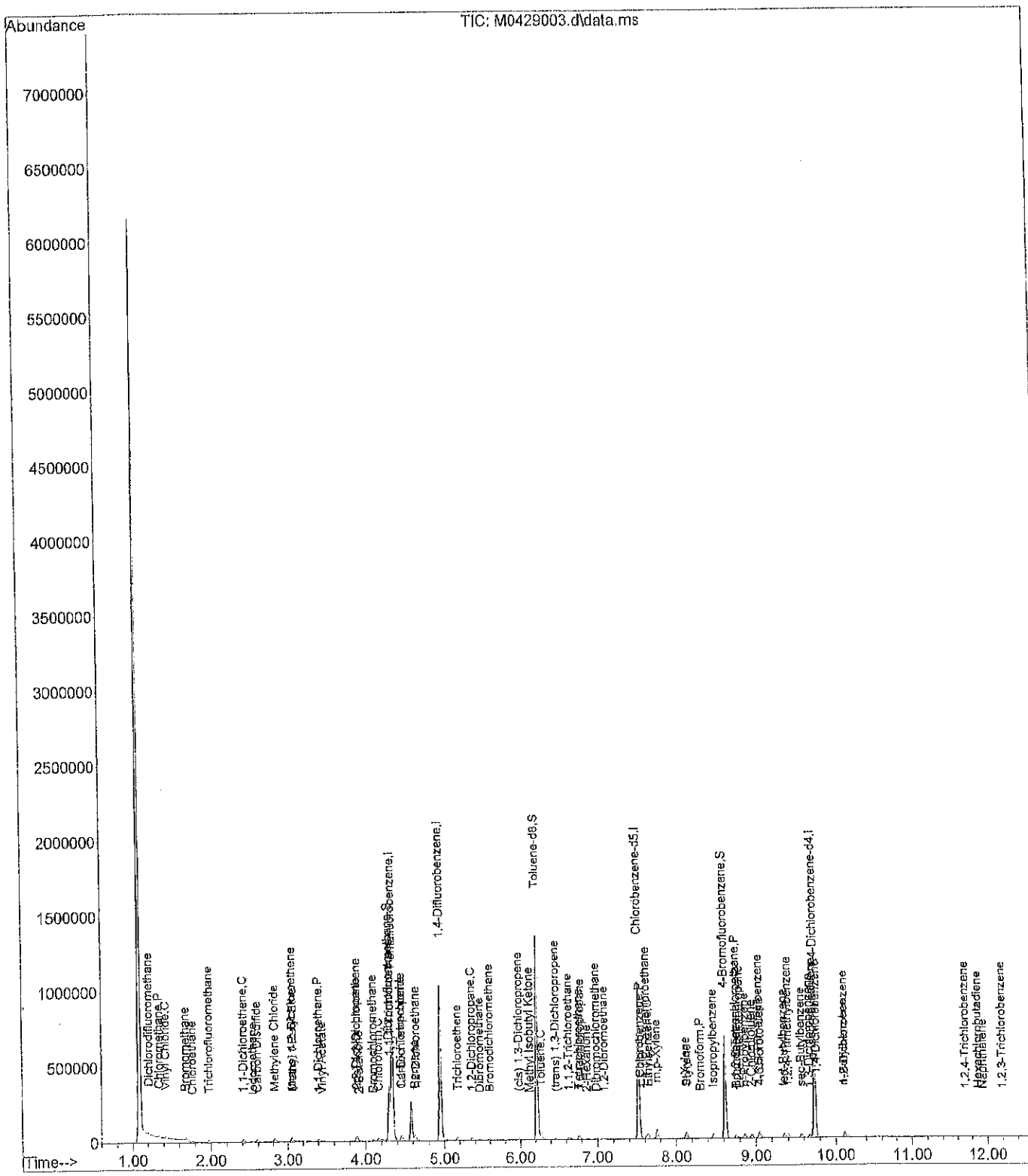
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SD 4/29/14

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429003.d
Acq On : 29 Apr 2014 8:22 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 29 08:35:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429004.d
Acq On : 29 Apr 2014 8:45 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 29 08:58:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	535221	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	768552	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	587469	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	241416	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	198339	8.14	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 81.40%				
36) Toluene-d8	6.220	98	842821	9.31	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.10%				
54) 4-Bromofluorobenzene	8.616	95	251795	9.66	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 96.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	19889	0.48	ppb		100
3) Chloromethane	1.343	50	43671	0.69	ppb		99
4) Vinyl Chloride	1.428	62	39242	0.73	ppb		100
5) Bromomethane	1.684	96	23957	0.94	ppb		95
6) Chloroethane	1.769	64	21931	0.78	ppb		97
7) Trichlorofluoromethane	1.977	101	48945	0.85	ppb		100
8) 1,1-Dichloroethene	2.416	61	49927	0.81	ppb		99
9) Acetone	2.483	43	4032	0.53	ppb		92
10) Iodomethane	2.538	142	24115	0.95	ppb		92
11) Carbon Disulfide	2.592	76	81329	0.83	ppb		100
12) Methylene Chloride	2.824	49	49199	0.93	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	52456	0.85	ppb		100
14) Methyl t-Butyl Ether	3.068	73	32923	0.84	ppb		96
15) 1,1-Dichloroethane	3.409	63	59740	0.85	ppb		98
16) Vinyl Acetate	3.464	43	25430	0.85	ppb		99
17) 2,2-Dichloropropane	3.891	77	35190	0.78	ppb		98
18) (cis) 1,2-Dichloroethene	3.897	61	54683	0.84	ppb		100
19) 2-Butanone	3.928	43	6302	0.97	ppb	#	88
20) Bromochloromethane	4.098	130	12704	0.93	ppb		91
21) Chloroform	4.165	83	45499	0.82	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	42234	0.79	ppb	#	1
24) Carbon Tetrachloride	4.452	117	41614	0.83	ppb		96
25) 1,1-Dichloropropene	4.452	75	37882	0.81	ppb		100
26) Benzene	4.629	78	105812	0.86	ppb		97
27) 1,2-Dichloroethane	4.641	62	27344	0.81	ppb		98
29) Trichloroethene	5.171	130	33467	0.99	ppb		98
30) 1,2-Dichloropropane	5.360	63	27759	0.90	ppb		99
31) Dibromomethane	5.464	174	10231	1.03	ppb		98
32) Bromodichloromethane	5.598	83	25947	0.84	ppb		99
34) (cis) 1,3-Dichloropropene	5.982	75	27432	0.87	ppb		98
35) Methyl Isobutyl Ketone	6.122	43	10065	0.89	ppb	#	97
37) Toluene	6.281	91	111532	0.89	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	18387	0.89	ppb		96
40) 1,1,2-Trichloroethane	6.634	97	11554	0.93	ppb		95
41) Tetrachloroethene	6.768	166	33461	1.04	ppb		98
42) 1,3-Dichloropropane	6.781	76	19825	0.92	ppb		97
43) 2-Hexanone	6.866	43	6441	0.87	ppb	#	98
44) Dibromochloromethane	6.988	129	15000	0.93	ppb		99
45) 1,2-Dibromoethane	7.092	107	10397	0.96	ppb		97

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429004.d
Acq On : 29 Apr 2014 8:45 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 29 08:58:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

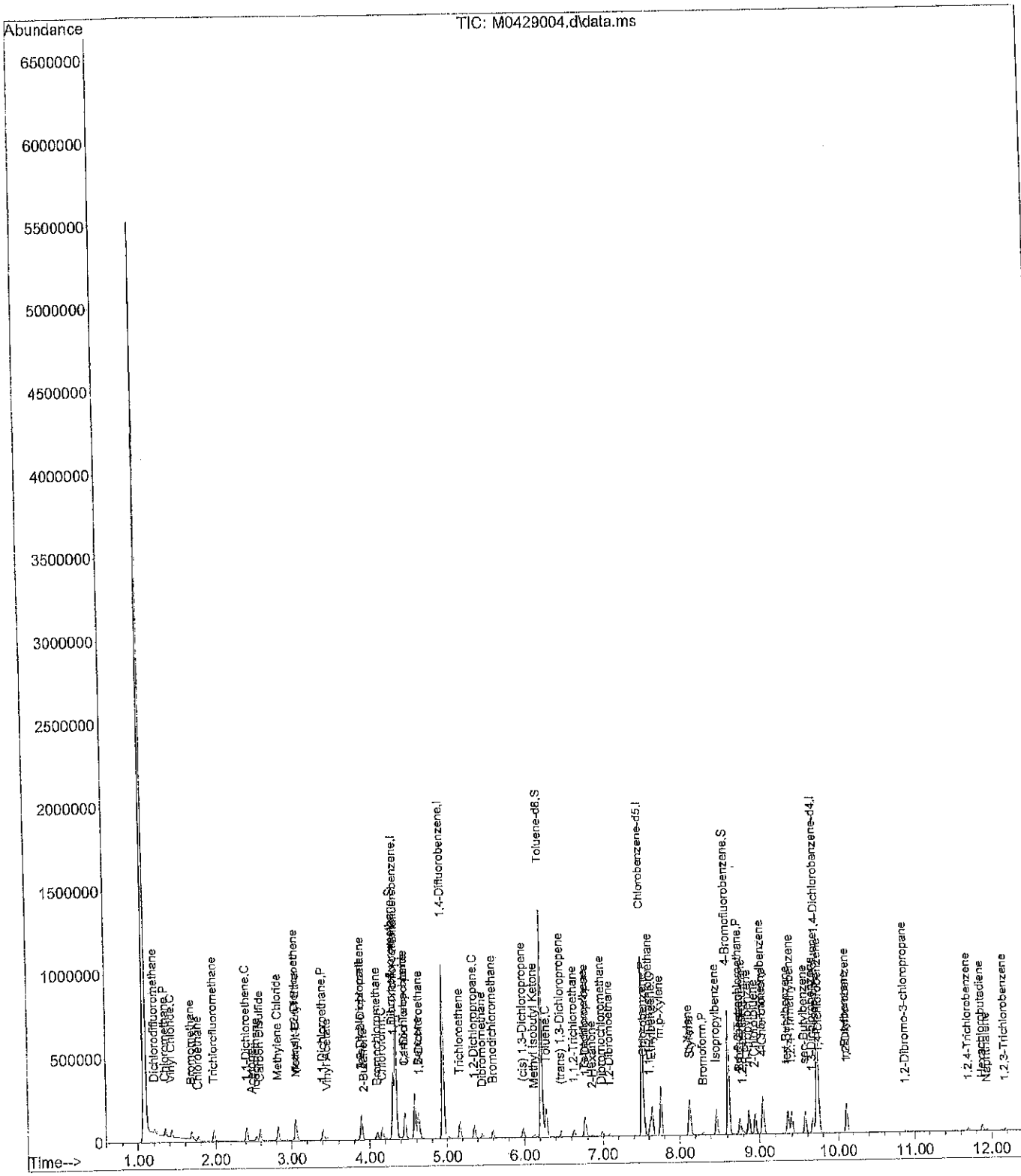
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) Chlorobenzene	7.543	112	63893	0.98	ppb		97
47) 1,1,1,2-Tetrachloroethane	7.616	133	19717	0.94	ppb		92
48) Ethylbenzene	7.646	91	116874	0.91	ppb		97
49) m,p-Xylene	7.756	91	172790	1.80	ppb		98
50) o-Xylene	8.128	91	77639	0.88	ppb		97
51) Styrene	8.140	104	59307	0.91	ppb		100
52) Bromoform	8.311	173	8011	0.98	ppb		96
53) Isopropylbenzene	8.475	105	102133	0.93	ppb		98
56) Bromobenzene	8.762	156	22496	1.03	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	9431	0.89	ppb		100
58) 1,2,3-Trichloropropane	8.799	75	8173	0.98	ppb	#	100
59) n-Propylbenzene	8.872	91	114835	0.89	ppb		99
60) 2-Chlorotoluene	8.951	126	23805	0.96	ppb		99
61) 4-Chlorotoluene	9.055	126	24186	0.99	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	85862	0.94	ppb		96
63) tert-Butylbenzene	9.353	119	69527	0.97	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	77759	0.92	ppb		98
65) sec-Butylbenzene	9.567	105	95576	0.92	ppb		97
66) 1,3-Dichlorobenzene	9.670	146	39694	1.05	ppb		98
67) p-Isopropyltoluene	9.713	119	75806	0.93	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	39916	1.01	ppb		95
69) 1,2-Dichlorobenzene	10.121	146	27428	1.00	ppb		97
70) n-Butylbenzene	10.109	91	68168	0.91	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	1393	1.15	ppb	#	74
72) 1,2,4-Trichlorobenzene	11.707	180	8921	1.18	ppb		95
73) Hexachlorobutadiene	11.883	225	8118	1.15	ppb		97
74) Naphthalene	11.944	128	7801	0.87	ppb		95
75) 1,2,3-Trichlorobenzene	12.182	180	5017	1.14	ppb		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429004.d
Acq On : 29 Apr 2014 8:45 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 29 08:58:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429005.d
Acq On : 29 Apr 2014 9:09 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 29 09:22:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	549077	10.00 ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	779437	10.00 ppb		0.00
38) Chlorobenzene-d5	7.518	117	593647	10.00 ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	253280	10.00 ppb		0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	195744	7.83 ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 78.30%			
36) Toluene-d8	6.220	98	844220	9.19 ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 91.90%			
54) 4-Bromofluorobenzene	8.622	95	261838	9.94 ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	56901	1.35 ppb		99
3) Chloromethane	1.343	50	101673	1.56 ppb		99
4) Vinyl Chloride	1.428	62	91734	1.67 ppb		99
5) Bromomethane	1.684	96	46257	1.77 ppb		98
6) Chloroethane	1.770	64	46309	1.61 ppb		98
7) Trichlorofluoromethane	1.977	101	99205	1.68 ppb		99
8) 1,1-Dichloroethene	2.416	61	107849	1.71 ppb		100
9) Acetone	2.483	43	8591	1.76 ppb		97
10) Iodomethane	2.538	142	60449	1.76 ppb		94
11) Carbon Disulfide	2.593	76	170067	1.69 ppb		99
12) Methylene Chloride	2.824	49	94046	1.73 ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	107734	1.70 ppb		98
14) Methyl t-Butyl Ether	3.068	73	68215	1.70 ppb		98
15) 1,1-Dichloroethane	3.409	63	123613	1.71 ppb		99
16) Vinyl Acetate	3.464	43	47319	1.55 ppb		100
17) 2,2-Dichloropropane	3.891	77	73176	1.58 ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	108850	1.63 ppb		99
19) 2-Butanone	3.928	43	11526	1.73 ppb		94
20) Bromochloromethane	4.098	130	26003	1.86 ppb		95
21) Chloroform	4.165	83	92983	1.62 ppb		99
22) 1,1,1-Trichloroethane	4.312	97	88752	1.61 ppb	#	1
24) Carbon Tetrachloride	4.452	117	84138	1.63 ppb		95
25) 1,1-Dichloropropene	4.452	75	74741	1.56 ppb		99
26) Benzene	4.629	78	211774	1.68 ppb		100
27) 1,2-Dichloroethane	4.641	62	52830	1.52 ppb		98
29) Trichloroethene	5.171	130	66421	1.93 ppb		97
30) 1,2-Dichloropropane	5.360	63	58360	1.86 ppb		99
31) Dibromomethane	5.464	174	20273	2.01 ppb		95
32) Bromodichloromethane	5.598	83	55958	1.79 ppb		96
33) 2-Chloroethyl Vinyl Ether	5.866	63	269	0.16 ppb	#	58
34) (cis) 1,3-Dichloropropene	5.982	75	56512	1.76 ppb		98
35) Methyl Isobutyl Ketone	6.122	43	20009	1.74 ppb	#	97
37) Toluene	6.275	91	230734	1.82 ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	36451	1.74 ppb		99
40) 1,1,2-Trichloroethane	6.634	97	24679	1.96 ppb		96
41) Tetrachloroethene	6.769	166	67215	2.08 ppb		100
42) 1,3-Dichloropropane	6.787	76	42396	1.94 ppb		99
43) 2-Hexanone	6.866	43	13539	1.81 ppb	#	99
44) Dibromochloromethane	6.988	129	32074	1.98 ppb		99

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429005.d
Acq On : 29 Apr 2014 9:09 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 29 09:22:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

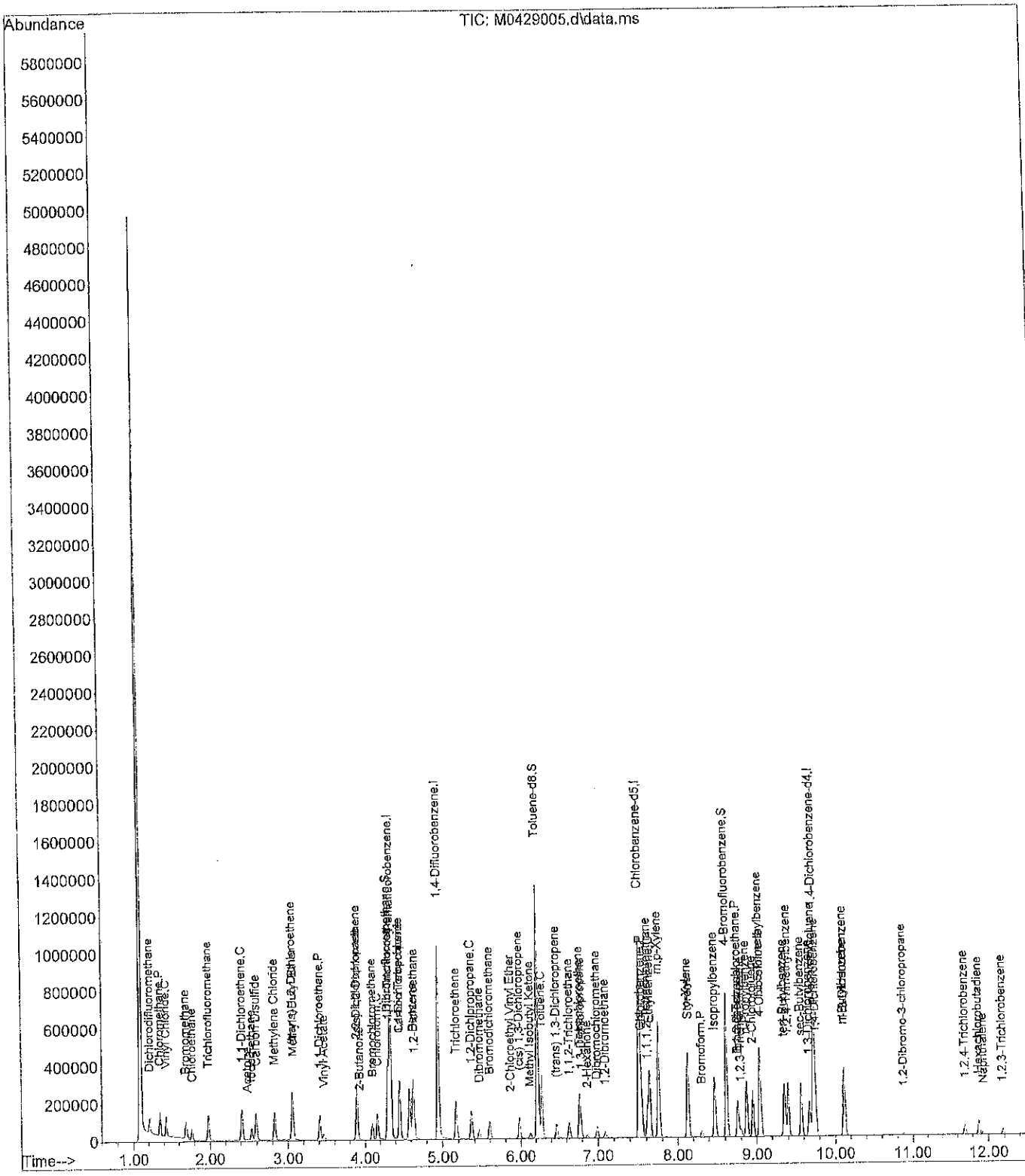
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	21685	1.97	ppb		99
46) Chlorobenzene	7.543	112	131148	1.98	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	42291	1.99	ppb		97
48) Ethylbenzene	7.646	91	243439	1.88	ppb		97
49) m,p-Xylene	7.756	91	362004	3.73	ppb		98
50) o-Xylene	8.128	91	167707	1.89	ppb		98
51) Styrene	8.140	104	132017	2.00	ppb		100
52) Bromoform	8.311	173	17626	2.14	ppb		98
53) Isopropylbenzene	8.476	105	211554	1.91	ppb		97
56) Bromobenzene	8.762	156	46158	2.01	ppb		95
57) 1,1,2,2-Tetrachloroethane	8.762	83	19587	1.76	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	15612	1.78	ppb	#	100
59) n-Propylbenzene	8.872	91	236953	1.75	ppb		97
60) 2-Chlorotoluene	8.951	126	51138	1.96	ppb		99
61) 4-Chlorotoluene	9.055	126	49917	1.95	ppb		97
62) 1,3,5-Trimethylbenzene	9.042	105	180885	1.89	ppb		99
63) tert-Butylbenzene	9.353	119	143067	1.90	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	169805	1.91	ppb		98
65) sec-Butylbenzene	9.567	105	206913	1.90	ppb		96
66) 1,3-Dichlorobenzene	9.670	146	82120	2.07	ppb		99
67) p-Isopropyltoluene	9.713	119	161149	1.88	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	83013	2.01	ppb		95
69) 1,2-Dichlorobenzene	10.115	146	60237	2.10	ppb		100
70) n-Butylbenzene	10.109	91	138894	1.78	ppb		95
71) 1,2-Dibromo-3-chloropr...	10.884	157	3092	2.44	ppb	#	93
72) 1,2,4-Trichlorobenzene	11.707	180	18839	2.38	ppb		98
73) Hexachlorobutadiene	11.883	225	17709	2.39	ppb		97
74) Naphthalene	11.944	128	18467	1.96	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	10556	2.15	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429005.d
Acq On : 29 Apr 2014 9:09 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 29 09:22:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429006.d
Acq On : 29 Apr 2014 9:32 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 29 09:45:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	549547	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	782310	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	596625	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	258777	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	200654	8.02	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.20%				
36) Toluene-d8	6.220	98	859958	9.33	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.30%				
54) 4-Bromofluorobenzene	8.616	95	259066	9.78	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.80%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	117982	2.80	ppb		99
3) Chloromethane	1.343	50	232357	3.57	ppb		99
4) Vinyl Chloride	1.428	62	214844	3.91	ppb		99
5) Bromomethane	1.684	96	108711	4.17	ppb		98
6) Chloroethane	1.769	64	116809	4.06	ppb		97
7) Trichlorofluoromethane	1.977	101	250137	4.23	ppb		99
8) 1,1-Dichloroethene	2.416	61	263311	4.17	ppb		100
9) Acetone	2.483	43	16402	3.91	ppb		93
10) Iodomethane	2.538	142	177835	4.41	ppb		95
11) Carbon Disulfide	2.592	76	430902	4.29	ppb		99
12) Methylene Chloride	2.824	49	222396	4.09	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	275905	4.34	ppb		100
14) Methyl t-Butyl Ether	3.068	73	172616	4.31	ppb		96
15) 1,1-Dichloroethane	3.409	63	304525	4.20	ppb		100
16) Vinyl Acetate	3.464	43	106199	3.47	ppb		97
17) 2,2-Dichloropropane	3.891	77	186764	4.03	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	274533	4.10	ppb		98
19) 2-Butanone	3.928	43	27465	4.13	ppb		98
20) Bromochloromethane	4.098	130	68460	4.88	ppb		86
21) Chloroform	4.165	83	239353	4.18	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	226341	4.10	ppb	#	39
24) Carbon Tetrachloride	4.458	117	218685	4.24	ppb		97
25) 1,1-Dichloropropene	4.452	75	198115	4.14	ppb		100
26) Benzene	4.629	78	539578	4.29	ppb		99
27) 1,2-Dichloroethane	4.641	62	136401	3.91	ppb		99
29) Trichloroethene	5.171	130	177853	5.15	ppb		99
30) 1,2-Dichloropropane	5.360	63	149390	4.74	ppb		99
31) Dibromomethane	5.464	174	55568	5.50	ppb		99
32) Bromodichloromethane	5.598	83	145998	4.66	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	999	0.59	ppb	#	58
34) (cis) 1,3-Dichloropropene	5.982	75	152267	4.73	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	48159	4.18	ppb		95
37) Toluene	6.275	91	585378	4.60	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	100970	4.81	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	62470	4.95	ppb		100
41) Tetrachloroethene	6.768	166	177638	5.46	ppb		99
42) 1,3-Dichloropropane	6.787	76	107420	4.89	ppb		97
43) 2-Hexanone	6.866	43	34435	4.57	ppb		99
44) Dibromochloromethane	6.988	129	83460	5.12	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429006.d
Acq On : 29 Apr 2014 9:32 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 29 09:45:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

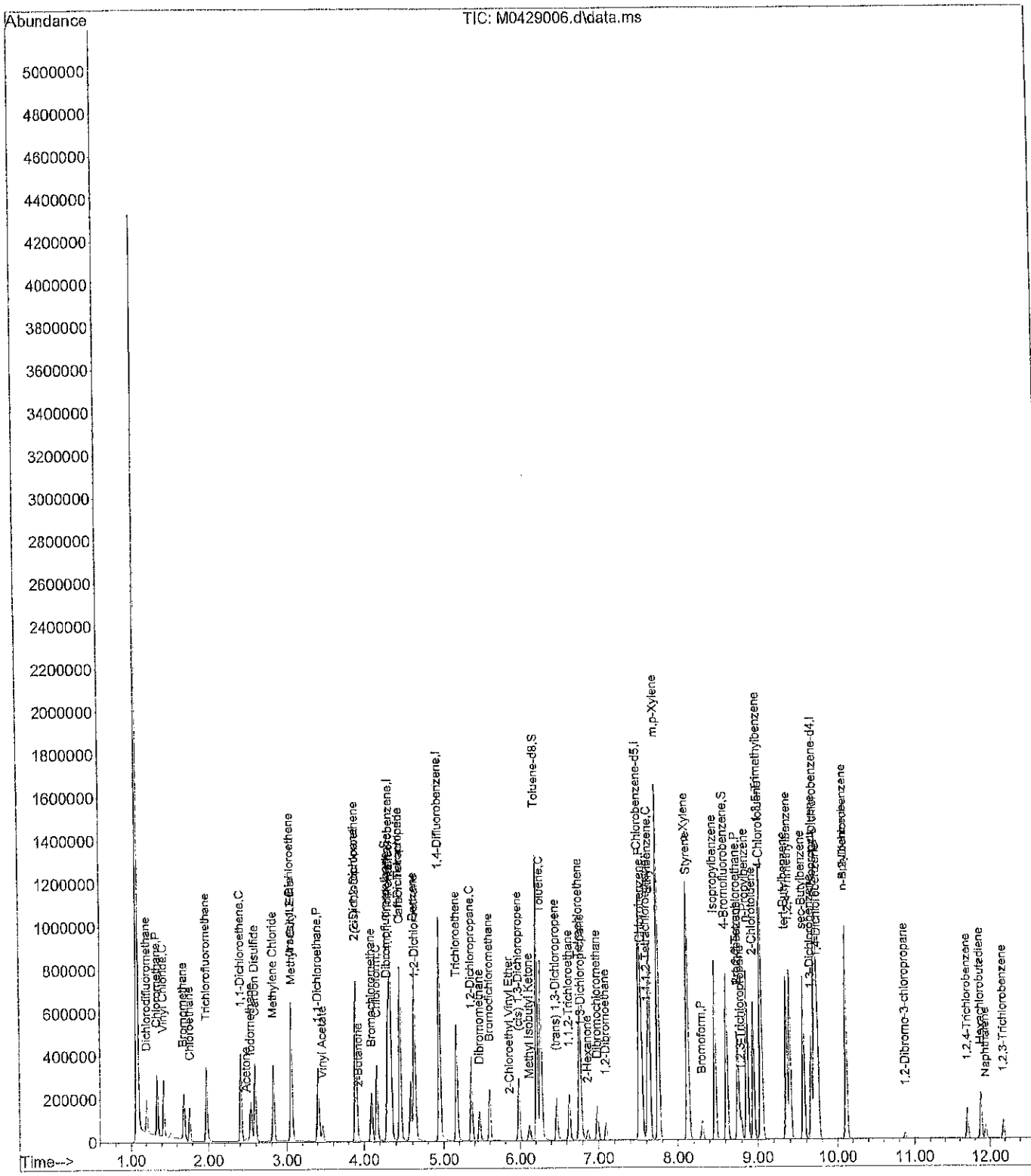
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	56729	5.14	ppb		99
46) Chlorobenzene	7.543	112	334765	5.04	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	111117	5.19	ppb		98
48) Ethylbenzene	7.646	91	633765	4.86	ppb		97
49) m,p-Xylene	7.756	91	955047	9.79	ppb		98
50) o-Xylene	8.128	91	438143	4.91	ppb		98
51) Styrene	8.140	104	343191	5.16	ppb		100
52) Bromoform	8.311	173	44563	5.38	ppb		99
53) Isopropylbenzene	8.475	105	552749	4.97	ppb		98
56) Bromobenzene	8.762	156	120845	5.16	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	50208	4.43	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	39472	4.41	ppb	#	100
59) n-Propylbenzene	8.872	91	637074	4.61	ppb		99
60) 2-Chlorotoluene	8.951	126	129033	4.85	ppb		99
61) 4-Chlorotoluene	9.055	126	128776	4.93	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	484446	4.96	ppb		97
63) tert-Butylbenzene	9.353	119	377936	4.91	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	457208	5.05	ppb		98
65) sec-Butylbenzene	9.567	105	538948	4.85	ppb		97
66) 1,3-Dichlorobenzene	9.670	146	210109	5.19	ppb		99
67) p-Isopropyltoluene	9.713	119	442294	5.06	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	219949	5.20	ppb		98
69) 1,2-Dichlorobenzene	10.115	146	156466	5.33	ppb		98
70) n-Butylbenzene	10.109	91	383573	4.80	ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	7649	5.91	ppb		94
72) 1,2,4-Trichlorobenzene	11.707	180	52456	6.48	ppb		96
73) Hexachlorobutadiene	11.877	225	48786	6.43	ppb		99
74) Naphthalene	11.944	128	54241	5.63	ppb		100
75) 1,2,3-Trichlorobenzene	12.182	180	31267	5.99	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429006.d
Acq On : 29 Apr 2014 9:32 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 29 09:45:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429007.d
Acq On : 29 Apr 2014 9:56 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 29 10:08:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	549353	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	782114	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	595948	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	255139	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	197525	7.90	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 79.00%				
36) Toluene-d8	6.220	98	847315	9.19	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 91.90%				
54) 4-Bromofluorobenzene	8.616	95	255983	9.68	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 96.80%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	230634	5.47	ppb		99
3) Chloromethane	1.343	50	460860	7.07	ppb		99
4) Vinyl Chloride	1.428	62	423675	7.72	ppb		99
5) Bromomethane	1.690	96	208994	8.01	ppb		99
6) Chloroethane	1.769	64	229356	7.97	ppb		99
7) Trichlorofluoromethane	1.977	101	496361	8.40	ppb		99
8) 1,1-Dichloroethene	2.416	61	522418	8.27	ppb		99
9) Acetone	2.483	43	32179	8.26	ppb		93
10) Iodomethane	2.538	142	379526	8.98	ppb		92
11) Carbon Disulfide	2.592	76	829606	8.26	ppb		100
12) Methylene Chloride	2.824	49	463423	8.53	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	529853	8.33	ppb		99
14) Methyl t-Butyl Ether	3.068	73	339379	8.47	ppb		97
15) 1,1-Dichloroethane	3.409	63	607358	8.38	ppb		100
16) Vinyl Acetate	3.464	43	312513	10.20	ppb		99
17) 2,2-Dichloropropane	3.897	77	361318	7.81	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	556258	8.31	ppb		99
19) 2-Butanone	3.928	43	56558	8.51	ppb		97
20) Bromochloromethane	4.098	130	131596	9.38	ppb		93
21) Chloroform	4.165	83	469225	8.19	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	440917	7.98	ppb		94
24) Carbon Tetrachloride	4.458	117	421413	8.17	ppb		98
25) 1,1-Dichloropropene	4.452	75	390205	8.15	ppb		100
26) Benzene	4.629	78	1067527	8.48	ppb		99
27) 1,2-Dichloroethane	4.641	62	273780	7.86	ppb		99
29) Trichloroethene	5.171	130	331219	9.60	ppb		100
30) 1,2-Dichloropropane	5.360	63	300097	9.53	ppb		100
31) Dibromomethane	5.464	174	107509	10.63	ppb		99
32) Bromodichloromethane	5.598	83	283751	9.06	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	2402	1.43	ppb	#	58
34) (cis) 1,3-Dichloropropene	5.982	75	305057	9.48	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	106806	9.28	ppb		99
37) Toluene	6.281	91	1151921	9.05	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	207578	9.89	ppb		100
40) 1,1,2-Trichloroethane	6.634	97	123810	9.81	ppb		99
41) Tetrachloroethene	6.769	166	346674	10.66	ppb		100
42) 1,3-Dichloropropane	6.787	76	212827	9.71	ppb		99
43) 2-Hexanone	6.866	43	70040	9.31	ppb		98
44) Dibromochloromethane	6.988	129	170523	10.46	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429007.d
Acq On : 29 Apr 2014 9:56 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 29 10:08:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

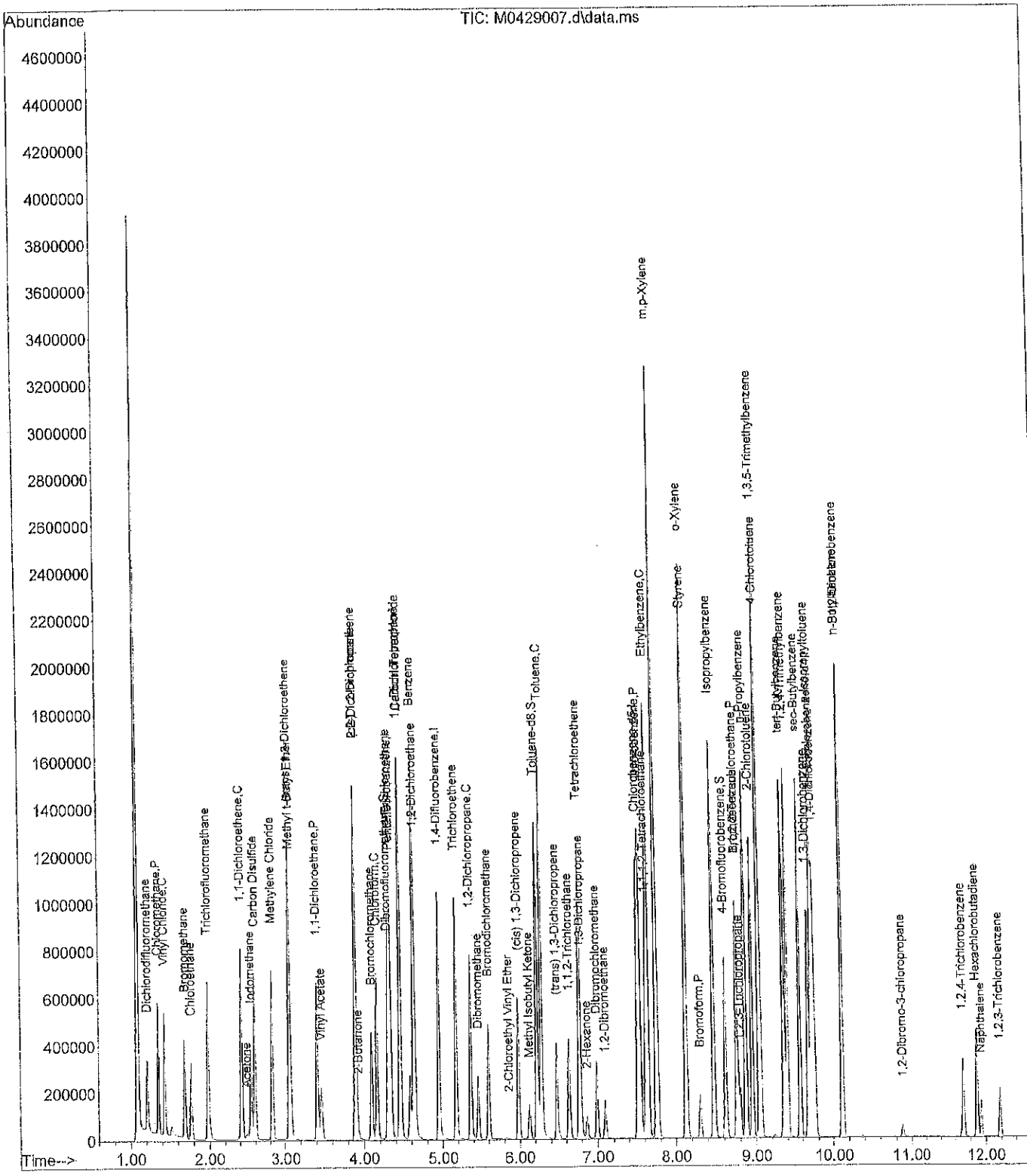
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	111691	10.13	ppb		99
46) Chlorobenzene	7.543	112	659300	9.94	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	220300	10.30	ppb		99
48) Ethylbenzene	7.646	91	1267331	9.73	ppb		98
49) m,p-Xylene	7.756	91	1915473	19.65	ppb		97
50) o-Xylene	8.128	91	881075	9.89	ppb		99
51) Styrene	8.140	104	699441	10.53	ppb		100
52) Bromoform	8.311	173	92597	11.19	ppb		98
53) Isopropylbenzene	8.475	105	1130399	10.17	ppb		98
56) Bromobenzene	8.762	156	238142	10.32	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	104614	9.36	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	81801	9.27	ppb	#	100
59) n-Propylbenzene	8.872	91	1275022	9.37	ppb		98
60) 2-Chlorotoluene	8.951	126	260706	9.94	ppb		100
61) 4-Chlorotoluene	9.055	126	252976	9.83	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	967965	10.04	ppb		97
63) tert-Butylbenzene	9.353	119	768277	10.12	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	913461	10.22	ppb		97
65) sec-Butylbenzene	9.567	105	1098176	10.03	ppb		98
66) 1,3-Dichlorobenzene	9.670	146	425294	10.67	ppb		99
67) p-Isopropyltoluene	9.713	119	898661	10.42	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	442331	10.61	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	324378	11.21	ppb		98
70) n-Butylbenzene	10.109	91	785400	9.97	ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	16255	12.74	ppb		93
72) 1,2,4-Trichlorobenzene	11.700	180	116474	14.58	ppb		99
73) Hexachlorobutadiene	11.877	225	103943	13.90	ppb		98
74) Naphthalene	11.944	128	133896	14.11	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	72277	13.88	ppb		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429007.d
Acq On : 29 Apr 2014 9:56 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 29 10:08:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429008.d
Acq On : 29 Apr 2014 10:19 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 29 10:32:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	552718	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	785759	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	615720	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	262850	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	202150	8.03	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.30%				
36) Toluene-d8	6.220	98	865667	9.35	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.50%				
54) 4-Bromofluorobenzene	8.622	95	268656	9.83	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	947155	22.33	ppb		100
3) Chloromethane	1.343	50	1468934	22.41	ppb		99
4) Vinyl Chloride	1.428	62	1325794	24.01	ppb		99
5) Bromomethane	1.690	96	598459	22.81	ppb		99
6) Chloroethane	1.769	64	657697	22.71	ppb		98
7) Trichlorofluoromethane	1.977	101	1388719	23.35	ppb		99
8) 1,1-Dichloroethene	2.416	61	1459215	22.96	ppb		100
9) Acetone	2.483	43	81673	21.77	ppb		96
10) Iodomethane	2.538	142	1121054	25.62	ppb		95
11) Carbon Disulfide	2.592	76	2478867	24.53	ppb		100
12) Methylene Chloride	2.824	49	1232571	22.55	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	1466932	22.93	ppb		100
14) Methyl t-Butyl Ether	3.068	73	935183	23.21	ppb		96
15) 1,1-Dichloroethane	3.409	63	1644756	22.56	ppb		99
16) Vinyl Acetate	3.464	43	889593	28.86	ppb		99
17) 2,2-Dichloropropane	3.897	77	963294	20.69	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	1487151	22.08	ppb		100
19) 2-Butanone	3.928	43	143591	21.46	ppb		96
20) Bromochloromethane	4.098	130	350306	24.83	ppb		93
21) Chloroform	4.165	83	1241787	21.55	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	1201613	21.63	ppb	#	69
24) Carbon Tetrachloride	4.458	117	1136900	21.90	ppb		98
25) 1,1-Dichloropropene	4.452	75	1041187	21.62	ppb		99
26) Benzene	4.629	78	2830663	22.35	ppb		99
27) 1,2-Dichloroethane	4.641	62	717481	20.46	ppb		100
29) Trichloroethene	5.171	130	872947	25.19	ppb		99
30) 1,2-Dichloropropane	5.360	63	786996	24.88	ppb		100
31) Dibromomethane	5.464	174	290067	28.56	ppb		99
32) Bromodichloromethane	5.598	83	761406	24.21	ppb		99
33) 2-Chloroethyl Vinyl Ether	5.866	63	7535	4.45	ppb	#	73
34) (cis) 1,3-Dichloropropene	5.982	75	817771	25.30	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	291347	25.19	ppb		98
37) Toluene	6.281	91	3096220	24.21	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	547902	25.28	ppb		100
40) 1,1,2-Trichloroethane	6.634	97	324684	24.91	ppb		100
41) Tetrachloroethene	6.769	166	915863	27.26	ppb		99
42) 1,3-Dichloropropane	6.787	76	562912	24.85	ppb		98
43) 2-Hexanone	6.866	43	191050	24.57	ppb		98
44) Dibromochloromethane	6.988	129	458203	27.22	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429008.d
Acq On : 29 Apr 2014 10:19 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 29 10:32:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

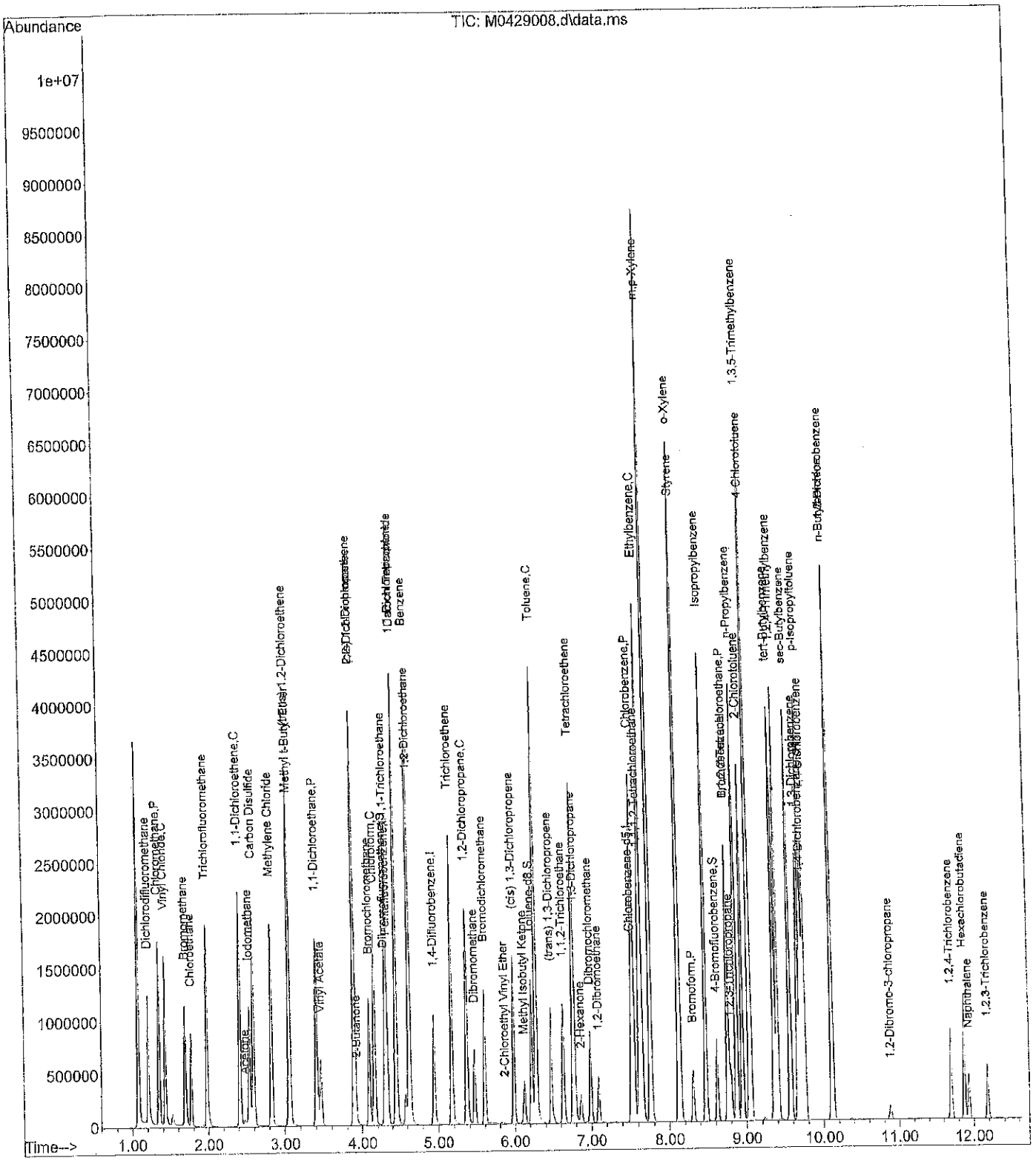
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	296547	26.03 ppb		97
46) Chlorobenzene	7.543	112	1741386	25.40 ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	589836	26.70 ppb		99
48) Ethylbenzene	7.646	91	3444537	25.59 ppb		99
49) m,p-Xylene	7.756	91	5095029	50.58 ppb		98
50) o-Xylene	8.128	91	2351048	25.55 ppb		98
51) Styrene	8.140	104	1850771	26.98 ppb		100
52) Bromoform	8.311	173	247276	28.92 ppb		98
53) Isopropylbenzene	8.475	105	3029744	26.38 ppb		99
56) Bromobenzene	8.762	156	622285	26.16 ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	275987	23.96 ppb		97
58) 1,2,3-Trichloropropane	8.799	75	207364	22.81 ppb	#	100
59) n-Propylbenzene	8.872	91	3413168	24.34 ppb		99
60) 2-Chlorotoluene	8.951	126	688982	25.50 ppb		99
61) 4-Chlorotoluene	9.055	126	671210	25.31 ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	2576139	25.94 ppb		98
63) tert-Butylbenzene	9.353	119	2040900	26.09 ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	2409428	26.18 ppb		97
65) sec-Butylbenzene	9.567	105	2888448	25.60 ppb		98
66) 1,3-Dichlorobenzene	9.670	146	1105244	26.90 ppb		99
67) p-Isopropyltoluene	9.713	119	2386697	26.86 ppb		100
68) 1,4-Dichlorobenzene	9.756	146	1148406	26.74 ppb		100
69) 1,2-Dichlorobenzene	10.115	146	823176	27.62 ppb		99
70) n-Butylbenzene	10.109	91	2088207	25.74 ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	42667	32.45 ppb		92
72) 1,2,4-Trichlorobenzene	11.707	180	309114	37.57 ppb		98
73) Hexachlorobutadiene	11.877	225	272928	35.44 ppb		100
74) Naphthalene	11.944	128	357030	36.51 ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	186996	34.66 ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429008.d
Acq On : 29 Apr 2014 10:19 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 29 10:32:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429010.d
Acq On : 29 Apr 2014 11:06 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 29 11:18:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	553064	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	782743	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	607122	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	253787	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	199084	7.90	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 79.00%				
36) Toluene-d8	6.220	98	864297	9.37	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.70%				
54) 4-Bromofluorobenzene	8.622	95	257642	9.56	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 95.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	1832503	43.18	ppb		100
3) Chloromethane	1.343	50	2910390	44.38	ppb		99
4) Vinyl Chloride	1.428	62	2528972	45.78	ppb		99
5) Bromomethane	1.690	96	1159039	44.15	ppb		99
6) Chloroethane	1.769	64	1222307	42.19	ppb		99
7) Trichlorofluoromethane	1.977	101	2691673	45.24	ppb		100
8) 1,1-Dichloroethene	2.416	61	2821936	44.38	ppb		99
9) Acetone	2.483	43	158053	42.67	ppb		95
10) Iodomethane	2.538	142	2156824	48.91	ppb		93
11) Carbon Disulfide	2.592	76	4793717	47.42	ppb		100
12) Methylene Chloride	2.824	49	2350957	42.98	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	2880372	44.99	ppb		100
14) Methyl t-Butyl Ether	3.068	73	1849756	45.87	ppb		95
15) 1,1-Dichloroethane	3.409	63	3186919	43.68	ppb		99
16) Vinyl Acetate	3.464	43	1762654	57.15	ppb		99
17) 2,2-Dichloropropane	3.897	77	1840257	39.50	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	2892369	42.93	ppb		99
19) 2-Butanone	3.922	43	270858	40.46	ppb		98
20) Bromochloromethane	4.098	130	679522	48.13	ppb		92
21) Chloroform	4.165	83	2411301	41.82	ppb		100
22) 1,1,1-Trichloroethane	4.318	97	2342818	42.14	ppb	#	60
24) Carbon Tetrachloride	4.458	117	2229569	42.92	ppb		98
25) 1,1-Dichloropropene	4.452	75	2013745	41.79	ppb		100
26) Benzene	4.629	78	5523145	43.59	ppb		99
27) 1,2-Dichloroethane	4.641	62	1393012	39.70	ppb		100
29) Trichloroethene	5.171	130	1715291	49.68	ppb		100
30) 1,2-Dichloropropane	5.360	63	1557872	49.45	ppb		100
31) Dibromomethane	5.464	174	546976	54.06	ppb		99
32) Bromodichloromethane	5.598	83	1496778	47.77	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.866	63	16470	9.77	ppb	#	75
34) (cis) 1,3-Dichloropropene	5.982	75	1606427	49.89	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	558598	48.48	ppb		96
37) Toluene	6.281	91	6064438	47.60	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	1075862	50.34	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	635415	49.45	ppb		99
41) Tetrachloroethene	6.769	166	1769441	53.42	ppb		99
42) 1,3-Dichloropropane	6.787	76	1091661	48.88	ppb		98
43) 2-Hexanone	6.866	43	362451	47.27	ppb		96
44) Dibromochloromethane	6.988	129	906589	54.61	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429010.d
Acq On : 29 Apr 2014 11:06 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 29 11:18:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

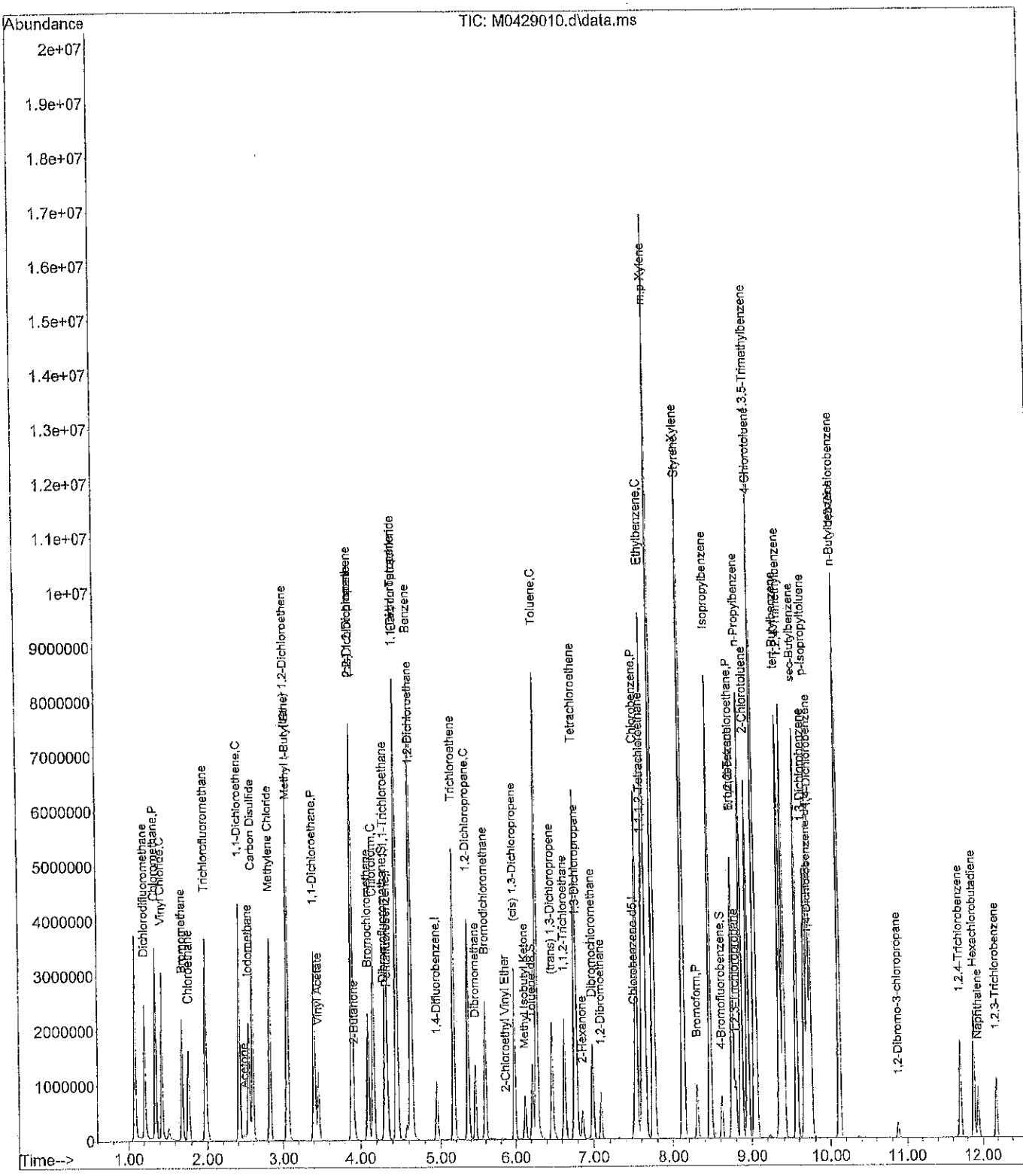
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	572300	50.95	ppb		98
46) Chlorobenzene	7.543	112	3422802	50.64	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.622	133	1165913	53.53	ppb		99
48) Ethylbenzene	7.646	91	6735262	50.74	ppb		99
49) m,p-Xylene	7.756	91	10044960	101.14	ppb		99
50) o-Xylene	8.128	91	4628655	51.01	ppb		99
51) Styrene	8.140	104	3588827	53.05	ppb		100
52) Bromoform	8.311	173	495750	58.81	ppb		99
53) Isopropylbenzene	8.475	105	5901746	52.11	ppb		99
56) Bromobenzene	8.762	156	1215842	52.95	ppb		97
57) 1,1,2,2-Tetrachloroethane	8.762	83	530951	47.74	ppb		99
58) 1,2,3-Trichloropropane	8.799	75	404272	46.05	ppb	#	100
59) n-Propylbenzene	8.872	91	6592244	48.69	ppb		99
60) 2-Chlorotoluene	8.951	126	1327794	50.90	ppb		100
61) 4-Chlorotoluene	9.055	126	1290977	50.42	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	4983662	51.98	ppb		98
63) tert-Butylbenzene	9.353	119	3996764	52.91	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	4658728	52.42	ppb		97
65) sec-Butylbenzene	9.567	105	5621191	51.59	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	2158815	54.43	ppb		100
67) p-Isopropyltoluene	9.713	119	4622966	53.88	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	2228247	53.73	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	1634296	56.80	ppb		99
70) n-Butylbenzene	10.109	91	4078715	52.07	ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	85991	67.74	ppb		94
72) 1,2,4-Trichlorobenzene	11.700	180	639708	80.53	ppb		98
73) Hexachlorobutadiene	11.883	225	526804	70.85	ppb		99
74) Naphthalene	11.944	128	781812	82.80	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	389575	74.65	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429010.d
Acq On : 29 Apr 2014 11:06 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 29 11:18:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429013.d
Acq On : 29 Apr 2014 12:16 pm
Operator :
Sample : ICV0429W1
Misc : V3-124-3
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 29 13:05:29 2014
Quant Method : C:\msdchem\1\methods\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:05:18 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	545345	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	778326	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	610930	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	264489	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	202700	10.27	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.70%			
36) Toluene-d8	6.220	98	856602	10.06	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.60%			
54) 4-Bromofluorobenzene	8.622	95	265291	10.11	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 101.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	281146	8.68	ppb	99
3) Chloromethane	1.343	50	551018	10.99	ppb	99
4) Vinyl Chloride	1.428	62	467878	10.47	ppb	98
5) Bromomethane	1.684	96	228926	9.67	ppb	100
6) Chloroethane	1.763	64	237525	9.90	ppb	99
7) Trichlorofluoromethane	1.977	101	522177	10.20	ppb	99
8) 1,1-Dichloroethene	2.410	61	587745	10.88	ppb	99
9) Acetone	2.483	43	33240	9.42	ppb	99
10) Iodomethane	2.538	142	387012	9.52	ppb	98
11) Carbon Disulfide	2.592	76	891714	10.12	ppb	100
12) Methylene Chloride	2.824	49	459078	9.77	ppb	99
13) (trans) 1,2-Dichloroet...	3.056	61	563576	10.21	ppb	99
14) Methyl t-Butyl Ether	3.068	73	382041	11.03	ppb	99
15) 1,1-Dichloroethane	3.409	63	650614	10.43	ppb	100
16) Vinyl Acetate	3.464	43	108984	3.71	ppb	99
17) 2,2-Dichloropropane	3.891	77	348113	9.26	ppb	98
18) (cis) 1,2-Dichloroethene	3.897	61	574154	10.16	ppb	99
19) 2-Butanone	3.928	43	55291	9.69	ppb	98
20) Bromochloromethane	4.098	130	142145	10.85	ppb	98
21) Chloroform	4.165	83	499137	10.62	ppb	99
22) 1,1,1-Trichloroethane	4.318	97	467662	10.32	ppb	96
24) Carbon Tetrachloride	4.458	117	447108	10.39	ppb	100
25) 1,1-Dichloropropene	4.452	75	405103	10.23	ppb	100
26) Benzene	4.629	78	1108259	10.23	ppb	99
27) 1,2-Dichloroethane	4.641	62	285491	10.50	ppb	99
29) Trichloroethene	5.171	130	389153	11.31	ppb	100
30) 1,2-Dichloropropane	5.360	63	312689	10.57	ppb	99
31) Dibromomethane	5.464	174	114318	10.71	ppb	99
32) Bromodichloromethane	5.598	83	305687	10.88	ppb	99
33) 2-Chloroethyl Vinyl Ether	5.866	63	2166	8.18	ppb #	100
34) (cis) 1,3-Dichloropropene	5.982	75	317587	10.78	ppb	99
35) Methyl Isobutyl Ketone	6.122	43	107486	10.32	ppb	98
37) Toluene	6.281	91	1199856	10.17	ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	215501	10.60	ppb	99
40) 1,1,2-Trichloroethane	6.634	97	131426	10.43	ppb	98
41) Tetrachloroethene	6.768	166	361271	9.99	ppb	100
42) 1,3-Dichloropropane	6.787	76	226618	10.42	ppb	99
43) 2-Hexanone	6.866	43	71707	10.33	ppb	95
44) Dibromochloromethane	6.988	129	186776	10.91	ppb	98

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429013.d
Acq On : 29 Apr 2014 12:16 pm
Operator :
Sample : ICV0429W1
Misc : V3-124-3
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 29 13:05:29 2014
Quant Method : C:\msdchem\1\methods\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:05:18 2014
Response via : Initial Calibration

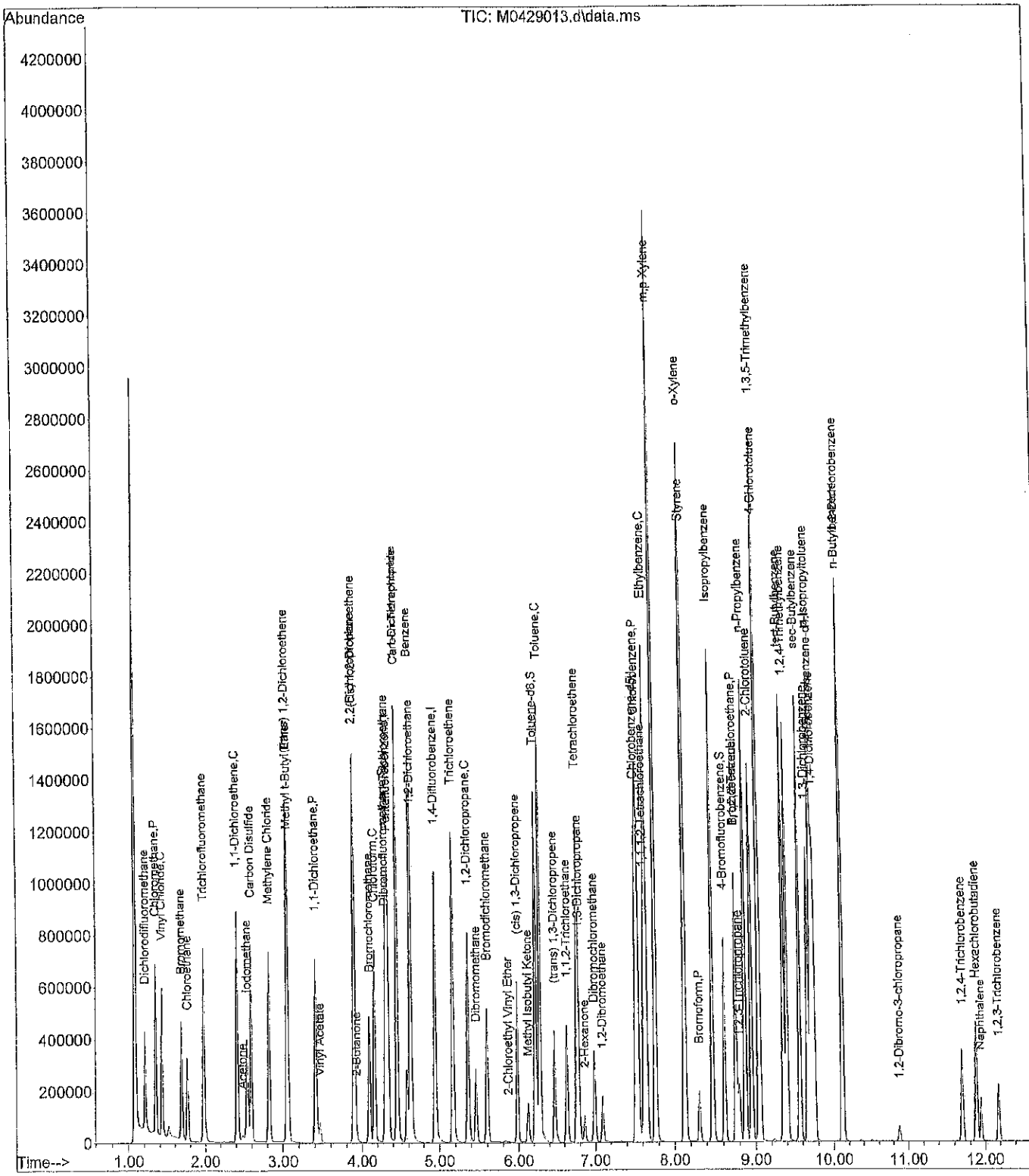
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	121208	10.77	ppb		100
46) Chlorobenzene	7.543	112	754958	11.11	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	232738	10.46	ppb		100
48) Ethylbenzene	7.646	91	1325946	10.21	ppb		100
49) m,p-Xylene	7.756	91	2074583	21.46	ppb		100
50) o-Xylene	8.128	91	1012622	11.44	ppb		100
51) Styrene	8.140	104	733805	10.77	ppb		100
52) Bromoform	8.311	173	97875	10.76	ppb		98
53) Isopropylbenzene	8.475	105	1298630	11.56	ppb		99
56) Bromobenzene	8.762	156	258343	10.30	ppb		100
57) 1,1,2,2-Tetrachloroethane	8.762	83	94716	8.97	ppb		100
58) 1,2,3-Trichloropropane	8.799	75	87991	10.35	ppb	#	100
59) n-Propylbenzene	8.872	91	1443555	10.86	ppb		99
60) 2-Chlorotoluene	8.951	126	303283	11.29	ppb		98
61) 4-Chlorotoluene	9.055	126	295001	11.06	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	1002765	10.09	ppb		99
63) tert-Butylbenzene	9.353	119	878287	11.14	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	943689	10.22	ppb		99
65) sec-Butylbenzene	9.567	105	1240305	11.14	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	499116	11.43	ppb		98
67) p-Isopropyltoluene	9.713	119	993346	11.04	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	457850	10.10	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	375678	11.71	ppb		99
70) n-Butylbenzene	10.109	91	796584	10.01	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	17314	10.49	ppb		95
72) 1,2,4-Trichlorobenzene	11.707	180	129758	10.25	ppb		98
73) Hexachlorobutadiene	11.883	225	102981	10.13	ppb		97
74) Naphthalene	11.944	128	143524	9.83	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	78512	10.23	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429013.d
Acq On : 29 Apr 2014 12:16 pm
Operator :
Sample : ICV0429W1
Misc : V3-124-3
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 29 13:05:29 2014
Quant Method : C:\msdchem\1\methods\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:05:18 2014
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501002.d
Acq On : 1 May 2014 7:56 am
Operator :
Sample : CCV0501W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 01 08:09:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	10.000	10.000	0.0	95	0.00
2		Dichlorodifluoromethane	10.000	9.819	1.8	134	0.00
3	P	Chloromethane	10.000	11.734	-17.3	122	0.00
4	C	Vinyl Chloride	10.000	10.470	-4.7#	106	0.00
5		Bromomethane	10.000	8.993	10.1	98	0.00
6		Chloroethane	10.000	9.874	1.3	99	0.00
7		Trichlorofluoromethane	10.000	10.162	-1.6	101	0.00
8	C	1,1-Dichloroethene	10.000	10.339	-3.4#	102	0.00
9		Acetone	10.000	6.997	30.0#	74	0.00
10		Iodomethane	10.000	6.523	34.8#	65	0.00
11		Carbon Disulfide	10.000	10.610	-6.1	108	0.00
12		Methylene Chloride	10.000	9.045	9.6	88	0.00
13		(trans) 1,2-Dichloroethene	10.000	10.411	-4.1	104	0.00
14		Methyl t-Butyl Ether	10.000	8.246	17.5	81	0.00
15	P	1,1-Dichloroethane	10.000	9.928	0.7	98	0.00
16		Vinyl Acetate	10.000	8.835	11.6	88	0.00
17		2,2-Dichloropropane	10.000	10.651	-6.5	106	0.00
18		(cis) 1,2-Dichloroethene	10.000	9.672	3.3	94	0.00
19		2-Butanone	10.000	8.079	19.2	78	0.00
20		Bromochloromethane	10.000	9.086	9.1	87	0.00
21	C	Chloroform	10.000	9.576	4.2#	92	0.00
22		1,1,1-Trichloroethane	10.000	10.170	-1.7	100	0.00
23	S	Dibromofluoromethane	10.000	8.441	15.6	81	0.00
24		Carbon Tetrachloride	10.000	10.375	-3.8	102	0.00
25		1,1-Dichloropropene	10.000	10.066	-0.7	98	0.00
26		Benzene	10.000	9.820	1.8	96	0.00
27		1,2-Dichloroethane	10.000	8.924	10.8	85	0.00
28	I	1,4-Difluorobenzene	10.000	10.000	0.0	92	0.00
29		Trichloroethene	10.000	10.056	-0.6	97	0.00
30	C	1,2-Dichloropropane	10.000	9.784	2.2#	89	0.00
31		Dibromomethane	10.000	9.211	7.9	85	0.00
32		Bromodichloromethane	10.000	9.652	3.5	89	0.00
33		2-Chloroethyl Vinyl Ether	10.000	10.266	-2.7	110	0.00
34		(cis) 1,3-Dichloropropene	10.000	9.919	0.8	89	0.00
35		Methyl Isobutyl Ketone	10.000	8.061	19.4	73	0.00
36	S	Toluene-d8	10.000	9.980	0.2	93	0.00
37	C	Toluene	10.000	10.156	-1.6#	96	0.00
38	I	Chlorobenzene-d5	10.000	10.000	0.0	88	0.00
39		(trans) 1,3-Dichloropropene	10.000	9.995	0.1	84	0.00
40		1,1,2-Trichloroethane	10.000	9.475	5.3	83	0.00
41		Tetrachloroethene	10.000	11.054	-10.5	99	0.00
42		1,3-Dichloropropane	10.000	9.484	5.2	83	0.00
43		2-Hexanone	10.000	8.167	18.3	70	0.00
44		Dibromochloromethane	10.000	9.809	1.9	85	0.00
45		1,2-Dibromoethane	10.000	9.520	4.8	83	0.00
46	P	Chlorobenzene	10.000	10.248	-2.5	91	0.00
47		1,1,1,2-Tetrachloroethane	10.000	10.314	-3.1	90	0.00
48	C	Ethylbenzene	10.000	11.096	-11.0#	98	0.00

Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501002.d
Acq On : 1 May 2014 7:56 am
Operator :
Sample : CCV0501W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 01 08:09:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49		m,p-Xylene	20.000	22.180	-10.9	96	0.00
50		o-Xylene	10.000	10.697	-7.0	93	0.00
51		Styrene	10.000	10.564	-5.6	89	0.00
52	P	Bromoform	10.000	9.665	3.4	82	0.00
53		Isopropylbenzene	10.000	11.391	-13.9	97	0.00
54	S	4-Bromofluorobenzene	10.000	9.703	3.0	86	0.00
55	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	80	0.00
56		Bromobenzene	10.000	10.320	-3.2	84	0.00
57	P	1,1,2,2-Tetrachloroethane	10.000	10.858	-8.6	85	0.00
58		1,2,3-Trichloropropane	10.000	9.410	5.9	76	0.00
59		n-Propylbenzene	10.000	11.932	-19.3	96	0.00
60		2-Chlorotoluene	10.000	11.441	-14.4	91	0.00
61		4-Chlorotoluene	10.000	11.141	-11.4	91	0.00
62		1,3,5-Trimethylbenzene	10.000	11.762	-17.6	93	0.00
63		tert-Butylbenzene	10.000	11.968	-19.7	95	0.00
64		1,2,4-Trimethylbenzene	10.000	11.394	-13.9	89	0.00
65		sec-Butylbenzene	10.000	12.133	-21.3#	95	0.00
66		1,3-Dichlorobenzene	10.000	10.364	-3.6	82	0.00
67		p-Isopropyltoluene	10.000	12.021	-20.2#	93	0.00
68		1,4-Dichlorobenzene	10.000	10.319	-3.2	82	0.00
69		1,2-Dichlorobenzene	10.000	10.049	-0.5	77	0.00
70		n-Butylbenzene	10.000	11.781	-17.8	92	0.00
71		1,2-Dibromo-3-chloropropane	10.000	8.629	13.7	68	0.00
72		1,2,4-Trichlorobenzene	10.000	7.389	26.1#	62	0.00
73		Hexachlorobutadiene	10.000	9.512	4.9	72	0.00
74		Naphthalene	10.000	6.453	35.5#	52	0.00
75		1,2,3-Trichlorobenzene	10.000	6.769	32.3#	55	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501002.d
Acq On : 1 May 2014 7:56 am
Operator :
Sample : CCV0501W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 01 08:09:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	522984	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	721879	10.00	ppb		0.00
38) Chlorobenzene-d5	7.519	117	525996	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.732	152	204660	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	159730	8.44	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.40%				
36) Toluene-d8	6.220	98	788444	9.98	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.80%				
54) 4-Bromofluorobenzene	8.616	95	219253	9.70	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	309985	9.82	ppb		98
3) Chloromethane	1.343	50	564380	11.73	ppb		99
4) Vinyl Chloride	1.428	62	448864	10.47	ppb		98
5) Bromomethane	1.690	96	204102	8.99	ppb		99
6) Chloroethane	1.770	64	227086	9.87	ppb		98
7) Trichlorofluoromethane	1.977	101	498848	10.16	ppb		99
8) 1,1-Dichloroethene	2.416	61	535446	10.34	ppb		99
9) Acetone	2.483	43	23669	7.00	ppb		96
10) Iodomethane	2.538	142	247029	6.52	ppb		97
11) Carbon Disulfide	2.593	76	896641	10.61	ppb		100
12) Methylene Chloride	2.824	49	407640	9.04	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	551252	10.41	ppb		99
14) Methyl t-Butyl Ether	3.062	73	273933	8.25	ppb		99
15) 1,1-Dichloroethane	3.410	63	593736	9.93	ppb		100
16) Vinyl Acetate	3.458	43	274715	8.83	ppb		100
17) 2,2-Dichloropropane	3.891	77	383885	10.65	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	523934	9.67	ppb		100
19) 2-Butanone	3.922	43	44187	8.08	ppb		96
20) Bromochloromethane	4.098	130	114202	9.09	ppb		99
21) Chloroform	4.166	83	431441	9.58	ppb		100
22) 1,1,1-Trichloroethane	4.318	97	441784	10.17	ppb		97
24) Carbon Tetrachloride	4.452	117	428217	10.37	ppb		99
25) 1,1-Dichloropropene	4.452	75	382417	10.07	ppb		100
26) Benzene	4.629	78	1019696	9.82	ppb		100
27) 1,2-Dichloroethane	4.641	62	232628	8.92	ppb		99
29) Trichloroethene	5.171	130	320889	10.06	ppb		100
30) 1,2-Dichloropropane	5.360	63	268318	9.78	ppb		100
31) Dibromomethane	5.464	174	91214	9.21	ppb		98
32) Bromodichloromethane	5.598	83	251583	9.65	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.866	63	2639	10.27	ppb	#	100
34) (cis) 1,3-Dichloropropene	5.982	75	271134	9.92	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	77894	8.06	ppb		99
37) Toluene	6.275	91	1111185	10.16	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	174927	9.99	ppb		99
40) 1,1,2-Trichloroethane	6.635	97	102838	9.48	ppb		99
41) Tetrachloroethene	6.769	166	344196	11.05	ppb		99
42) 1,3-Dichloropropane	6.787	76	177518	9.48	ppb		100
43) 2-Hexanone	6.866	43	48788	8.17	ppb		95
44) Dibromochloromethane	6.988	129	144645	9.81	ppb		98

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501002.d
Acq On : 1 May 2014 7:56 am
Operator :
Sample : CCV0501W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 01 08:09:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

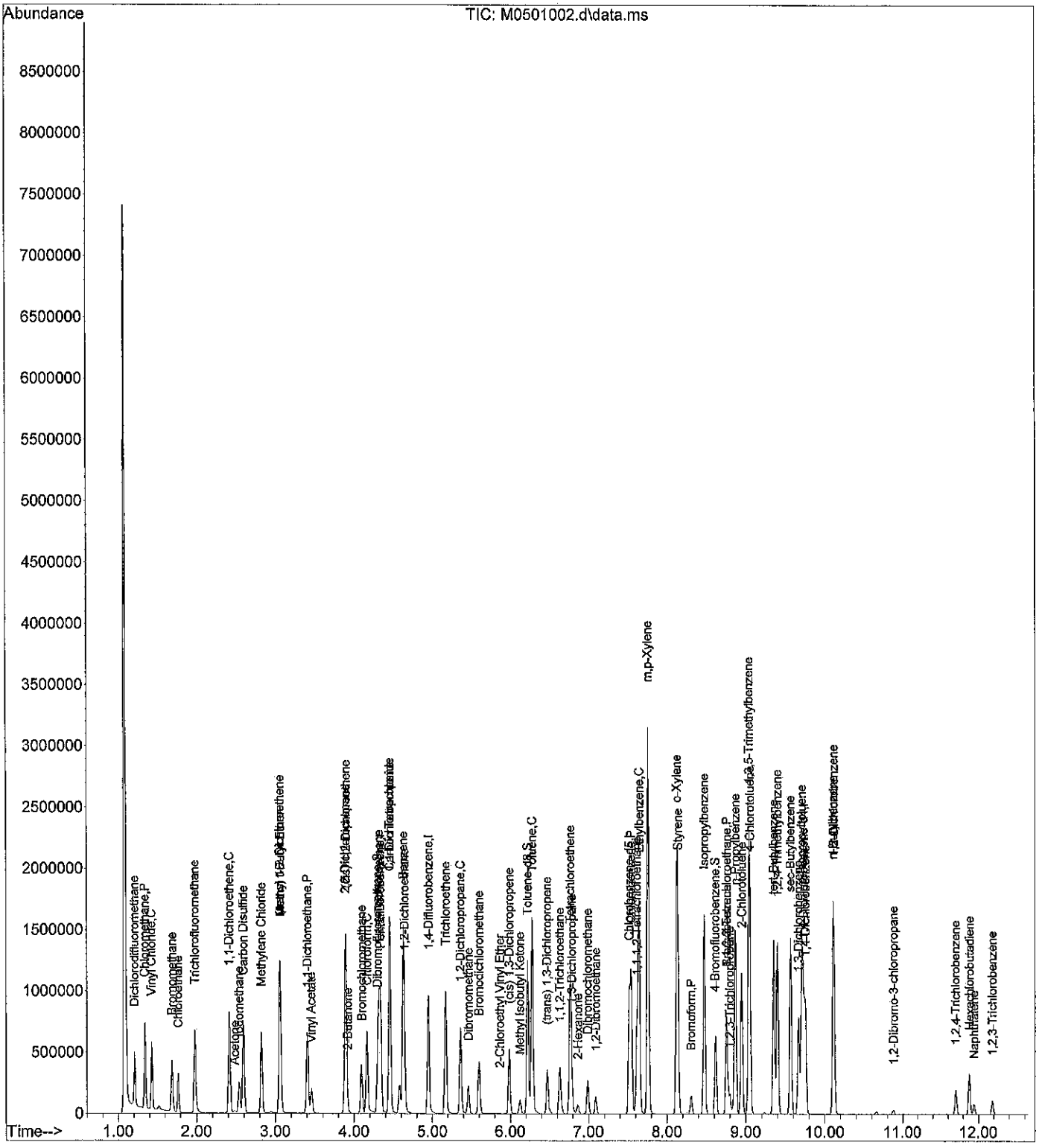
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	1,2-Dibromoethane	7.092	107	92283	9.52	ppb		98
46)	Chlorobenzene	7.543	112	599761	10.25	ppb		100
47)	1,1,1,2-Tetrachloroethane	7.616	133	197633	10.31	ppb		98
48)	Ethylbenzene	7.647	91	1240646	11.10	ppb		99
49)	m,p-Xylene	7.756	91	1845675	22.18	ppb		99
50)	o-Xylene	8.128	91	815036	10.70	ppb		100
51)	Styrene	8.140	104	619769	10.56	ppb		100
52)	Bromoform	8.311	173	75706	9.67	ppb		98
53)	Isopropylbenzene	8.476	105	1101590	11.39	ppb		100
56)	Bromobenzene	8.762	156	200388	10.32	ppb		99
57)	1,1,2,2-Tetrachloroethane	8.762	83	88743	10.86	ppb		99
58)	1,2,3-Trichloropropane	8.799	75	61887	9.41	ppb	#	100
59)	n-Propylbenzene	8.872	91	1227584	11.93	ppb		100
60)	2-Chlorotoluene	8.951	126	237739	11.44	ppb		100
61)	4-Chlorotoluene	9.055	126	229867	11.14	ppb		99
62)	1,3,5-Trimethylbenzene	9.043	105	904819	11.76	ppb		100
63)	tert-Butylbenzene	9.354	119	730113	11.97	ppb		99
64)	1,2,4-Trimethylbenzene	9.402	105	813818	11.39	ppb		99
65)	sec-Butylbenzene	9.567	105	1044852	12.13	ppb		99
66)	1,3-Dichlorobenzene	9.671	146	350265	10.36	ppb		99
67)	p-Isopropyltoluene	9.713	119	836996	12.02	ppb		99
68)	1,4-Dichlorobenzene	9.756	146	361958	10.32	ppb		100
69)	1,2-Dichlorobenzene	10.116	146	249509	10.05	ppb		99
70)	n-Butylbenzene	10.110	91	725411	11.78	ppb		100
71)	1,2-Dibromo-3-chloropr...	10.884	157	11016	8.63	ppb		99
72)	1,2,4-Trichlorobenzene	11.701	180	71933	7.39	ppb		98
73)	Hexachlorobutadiene	11.884	225	74829	9.51	ppb		98
74)	Naphthalene	11.945	128	69978	6.45	ppb		96
75)	1,2,3-Trichlorobenzene	12.182	180	39844	6.77	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501002.d
Acq On : 1 May 2014 7:56 am
Operator :
Sample : CCV0501W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

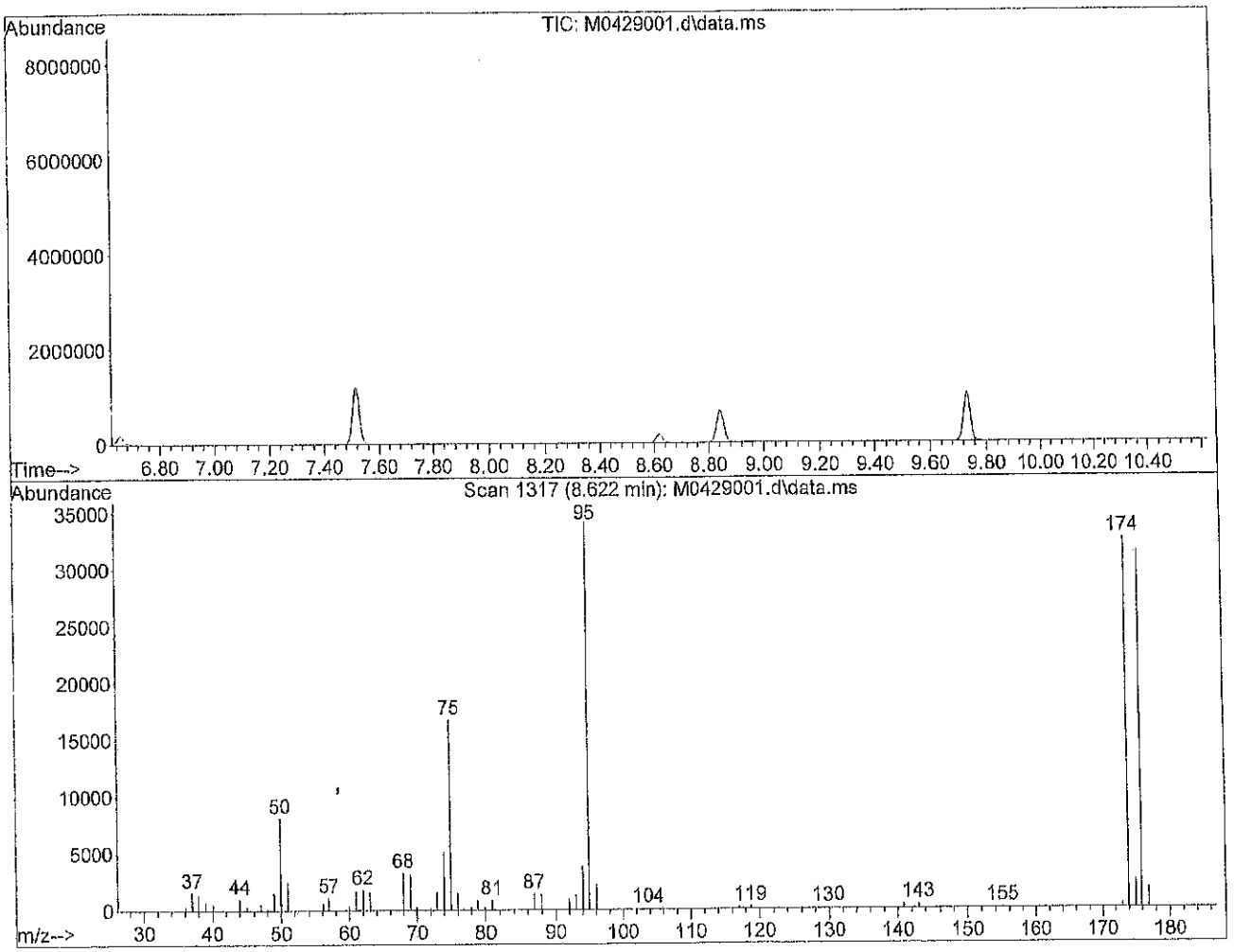
Quant Time: May 01 08:09:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429001.d
Acq On : 29 Apr 2014 7:03 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014



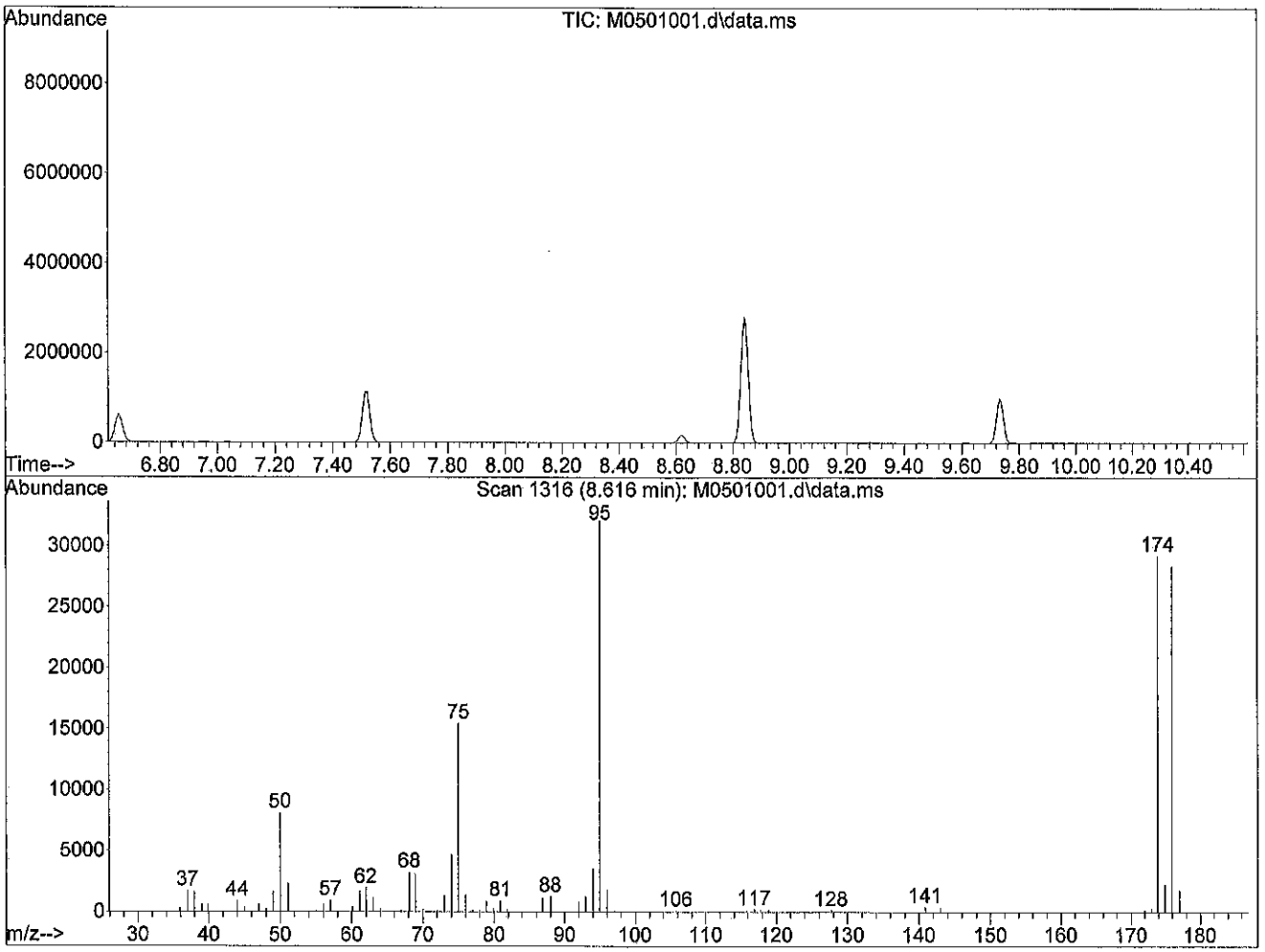
Spectrum Information: Scan 1317

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.9	8167	PASS
75	95	30	80	49.0	16768	PASS
95	95	100	100	100.0	34216	PASS
96	95	5	9	6.7	2283	PASS
173	174	0.00	2	1.2	402	PASS
174	95	50	100	95.2	32568	PASS
175	174	5	9	7.5	2428	PASS
176	174	95	101	96.7	31480	PASS
177	176	5	9	5.6	1770	PASS

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501001.d
Acq On : 1 May 2014 7:24 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140429W.M
Title :
Last Update : Tue Apr 29 13:05:18 2014



Spectrum Information: Scan 1316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.3	8105	PASS
75	95	30	80	48.2	15462	PASS
95	95	100	100	100.0	32096	PASS
96	95	5	9	5.7	1816	PASS
173	174	0.00	2	0.9	255	PASS
174	95	50	100	91.2	29256	PASS
175	174	5	9	7.7	2260	PASS
176	174	95	101	97.0	28392	PASS
177	176	5	9	6.4	1814	PASS

GC/MS QA-QC Check Report

Tune File : X:\VOLATILE\MORRIS\DATA\M140501\M0501001.d
Tune Time : 1 May 2014 7:24 am

Daily Calibration File : X:\VOLATILE\MORRIS\DATA\M140501\M0501002.d

522984 721879 525996

204660

File	Sample	Surrogate Recovery %			Internal Standard Responses		
M0501003.d							
	SB0501W1	88	98	93	524083	736760	529054
				194560			
M0501004.d							
	SBD0501W1	93	99	94	515554	733834	553906
				213829			
M0501005.d							
	MB0501W1	95	99	92	509176	720453	553393
				213784			
M0501009.d							
	04-198-07b	91	98	95	514621	735594	549446
				211709			
M0501010.d							
	04-198-01b	96	100	97	508370	738720	584945
				233866			
M0501011.d							
	04-198-04b	96	100	98	507832	732104	572691
				230150			
M0501012.d							
	04-198-05b	96	98	99	508277	741228	565811
				231445			
M0501013.d							
	04-198-03b	97	100	97	490415	716599	571092
				230803			
M0501014.d							
	04-198-06b	99	100	98	498409	721017	571912
				240347			
M0501015.d							
	04-198-02b	96	101	96	499559	722759	581368
				236516			

(fails) - fails 12hr time check * - fails criteria

Created: Thu May 01 14:41:13 2014 Morris

Sequence Name: C:\msdchem\1\sequence\M140429.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140430\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line			Sample Name/Misc Info
1)	Sample	1	M0429001 M140328W 50ng bfb mass tune
2)	Sample	2	M0429002 M140328W BLANK
3)	Sample	3	M0429003 M140328W 0.20 PPB ICAL
4)	Sample	4	M0429004 M140328W 1.0 PPB ICAL
5)	Sample	5	M0429005 M140328W 2.0 PPB ICAL
6)	Sample	6	M0429006 M140328W 5.0 PPB ICAL
7)	Sample	7	M0429007 M140328W 10 PPB ICAL
8)	Sample	8	M0429008 M140328W 25 PPB ICAL
9)	Sample	9	M0429009 M140328W BLANK
10)	Sample	10	M0429010 M140328W 50 PPB ICAL
11)	Sample	11	M0429011 M140328W BLANK
12)	Sample	12	M0429012 M140429W BLANK
13)	Sample	13	M0429013 M140429W ICV0429W1
14)	Sample	14	M0429014 M140429W BLANK
15)	Sample	15	M0429015 M140429W 04-180-01a 1:100 SCREEN
16)	Sample	16	M0429016 M140429W 04-180-02a 1:100 SCREEN
17)	Sample	17	M0429017 M140429W 04-180-03a 1:100 SCREEN
18)	Sample	18	M0429018 M140429W 04-180-04a 1:100 SCREEN
19)	Sample	19	M0429019 M140429W 04-180-05a 1:100 SCREEN
20)	Sample	20	M0429020 M140429W 04-199-01a 1:100 SCREEN
21)	Sample	21	M0429021 M140429W 04-199-02a 1:100 SCREEN
22)	Sample	22	M0429022 M140429W 04-199-03a 1:100 SCREEN
23)	Sample	23	M0429023 M140429W 04-199-05a 1:100 SCREEN
24)	Sample	24	M0429024 M140429W 04-204-01a 1:100 SCREEN
25)	Sample	25	M0429025 M140429W 04-204-02a 1:100 SCREEN
26)	Sample	26	M0429026 M140429W 04-204-03a 1:100 SCREEN
27)	Sample	27	M0429027 M140429W 04-204-04a 1:100 SCREEN
28)	Sample	28	M0429028 M140429W 04-204-05a 1:100 SCREEN

Sequence Name: C:\msdchem\1\sequence\M140501.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140501\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info	
1)	Sample	1	M0501001 M140429W 50ng bfb mass tune
2)	Sample	2	M0501002 M140429W CCV0501W1
3)	Sample	3	M0501003 M140429W SB0501W1
4)	Sample	4	M0501004 M140429W SBD0501W1
5)	Sample	5	M0501005 M140429W MB0501W1
6)	Sample	6	M0501006 M140429W 04-180-05b
7)	Sample	7	M0501007 M140429W 04-180-06b
8)	Sample	8	M0501008 M140429W 04-180-07b
9)	Sample	9	M0501009 M140429W 04-198-07b
10)	Sample	10	M0501010 M140429W 04-198-01b
11)	Sample	11	M0501011 M140429W 04-198-04b
12)	Sample	12	M0501012 M140429W 04-198-05b
13)	Sample	13	M0501013 M140429W 04-198-03b
14)	Sample	14	M0501014 M140429W 04-198-06b
15)	Sample	15	M0501015 M140429W 04-198-02b
16)	Sample	16	M0501016 M140429W BLANK
17)	Sample	17	M0501017 M140429W 04-199-01b
18)	Sample	18	M0501018 M140429W 04-199-02b
19)	Sample	19	M0501019 M140429W 04-199-03b
20)	Sample	20	M0501020 M140429W 04-199-04b
21)	Sample	21	M0501021 M140429W 04-199-05b
22)	Sample	22	M0501022 M140429W 04-199-06b
23)	Sample	23	M0501023 M140429W 04-255-01a 1:100 SCREEN
24)	Sample	24	M0501024 M140429W 04-255-02a 1:100 SCREEN
25)	Sample	25	M0501025 M140429W 04-255-03a 1:100 SCREEN
26)	Sample	26	M0501026 M140429W 04-255-04a 1:100 SCREEN
27)	Sample	27	M0501027 M140429W 04-255-05a 1:100 SCREEN
28)	Sample	28	M0501028 M140429W 04-255-06a 1:100 SCREEN
29)	Sample	29	M0501029 M140429W 04-255-07a 1:100 SCREEN
30)	Sample	30	M0501030 M140429W 04-255-08a 1:100 SCREEN
31)	Sample	31	M0501031 M140429W 04-255-09a 1:100 SCREEN
32)	Sample	32	M0501032 M140429W 04-255-10a 1:100 SCREEN
33)	Sample	33	M0501033 M140429W 04-255-11a 1:100 SCREEN
34)	Sample	34	M0501034 M140429W 04-255-12a 1:100 SCREEN
35)	Sample	35	M0501035 M140429W 04-255-13a 1:100 SCREEN
36)	Sample	36	M0501036 M140429W 04-255-14a 1:100 SCREEN
37)	Sample	37	M0501037 M140429W 04-255-15a 1:100 SCREEN
38)	Sample	38	M0501038 M140429W 04-255-16a 1:100 SCREEN
39)	Sample	39	M0501039 M140429W 04-255-17a 1:100 SCREEN

OnSite Environmental Inc.

WATER EXTRACTION LOG

Instrument Run #: M140501
Date: 5-1-14
Int. Std./Surr. Stock#: V3-125-12 | V3-125-13
Matrix Spike Stock#: V3-125-11

# of Sample	Date	Sample I.D.	Volume	pH of Sample	Analyst	Miscellaneous
	5-1-14	MB0501W1	25mL	7	SD	
		SB0501W1		7		
		SBD0501W1		7		
1		04-180-05b		2		
2		-06b		2		
3		-07b		2		
4		04-198-01b		2		
5		-02b		2		
6		-03b		2		
7		-04b		2		
8		-05b		2		
9		-06b		2		
10		-07b		2		
11		04-199-01b		2		
12		-02b		2		
13		-03b		2		
14		-04b		2		
15		-05b		2		
16		-06b		2		

SD 5-1-14

TITLE **PROJECT**

Continued from page 114

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
VOC ADD'S	V3-115-1	AccuStandard® M-8260-ADD-10X Method 8260 Additions 2.0 mg/mL in MeOH Lot: 213091338 Exp: Jan 25,2014 8 comps. HIGHLY FLAMMABLE			1 mL		FOR LABORATORY USE ONLY WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm. STORAGE Freeze (<-10° C) 2 Danger	10-1-13	SD
~~250 ppm ICAL~~	~~V3-115-2~~	V3-114-4	2000 ppm	25 µL	1 mL	250 ppm	MeOH	10-1-13	SD
		V3-114-16							
		V3-115-1							
50 ppm ICAL	V3-115-3	V3-115-2	250 ppm	200 µL	1 mL	50 ppm	MeOH	10-1-13	SD
10 ppm ICAL	~~V3-115-4~~	V3-115-3	50 ppm	200 µL	1 mL	10 ppm	MeOH	10-1-13	SD
5 ppm ICAL	V3-115-5	V3-115-3	50 ppm	100 µL	1 mL	5 ppm	MeOH	10-1-13	SD
~~1 ppm ICAL~~	~~V3-115-6~~	~~V3-115-3~~	50 ppm	20 µL	1 mL	1 ppm	MeOH	10-1-13	SD
~~50 ppm SS (low)~~	~~V3-115-7~~	~~V3-113-16~~	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
~~50 ppm ICV~~	~~V3-115-8~~	V3-101-7	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
		V3-101-8							
		V3-101-9							
50 ppm CCV	V3-115-9	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD
		V3-114-16							
		V3-115-1							
2000 ppm SS	V3-115-10	AccuStandard® M-8240/60-SS-10X Surrogate Standard ~~VOA Mix~~ 2.0 mg/mL in MeOH Lot: 212051380 Exp: Jun 1,2022 4 comps. HIGHLY FLAMMABLE			1 mL		FOR LABORATORY USE ONLY STORAGE Ambient	10-7-13	SD
~~250 ppm SS~~	~~V3-115-11~~	V3-113-16 + V3-115-10	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-7-13	SD
~~25 ppm SS~~	~~V3-115-12~~	~~V3-114-14~~	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~10-8-13~~	~~SD~~
~~LOQ 50 ppm SS~~	~~V3-115-13~~	~~V3-115-10~~	~~2000 ppm~~	~~100 µL~~	~~4 mL~~	~~50 ppm~~	~~MeOH~~	~~10-8-13~~	~~SD~~
~~50 ppm ICV~~	~~V3-115-14~~	~~V3-114-14~~	~~2000 ppm~~	~~100 µL~~	~~4 mL~~	~~50 ppm~~	~~MeOH~~	~~10-8-13~~	~~SD~~
.05 ppm ICAL	V3-115-15	V3-115-6	1 ppm	.050 mL	1 mL	.050 ppm	MeOH	10-9-13	SD
50 ppm CCV	V3-115-16	V3-114-4	2000 ppm	25 mL	1 mL	50 ppm	MeOH	10-10-13	SD
		V3-114-16							
		V3-115-1							
2500 ppm MS	V3-115-17	AccuStandard® CLP-003-R-10X Purgeable Organic Matrix Spiking Soln. 2.5 mg/mL in MeOH Lot: 212011385 Exp: Feb 6,2022 5 comps. HIGHLY FLAMMABLE			1 mL		FOR LABORATORY USE ONLY WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm. STORAGE Freeze (<-10° C) 2 Danger	10-10-13	SD

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	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
	2000 ppm IS	V3-121-1							2-3-14	SD
5									Spot	SD
									2	2
Albert	250 ppm IS	V3-121-2	V3-120-8 + V3-121-1	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-3-14	SD
	50 ppm IS	V3-121-3	V3-120-8 + V3-121-1	2000 ppm	200 mL	1 mL	50 ppm	MeOH	2-3-14	SD
10	2000 ppm SS	V3-121-4							2-4-14	SD
									Spot	SD
									2	2
Albert	250 ppm SS	V3-121-13 + V3-121-4	2000 ppm	500 mL	4 mL	1 mL 250 ppm SD 2-4-14	250 ppm MeOH SD 2-4-14	MeOH	2-4-14	SD
15										
Albert	250 ppm SS	V3-121-5	V3-120-13 + V3-121-4	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-4-14	SD
	VOC Elements	V3-121-6							2-5-14	SD
20									discarded	SD 3/19
	VOC ADDIS	V3-121-7							2-5-14	SD
									discarded	SD 3/19
25	VOC GASES	V3-121-8							2-5-14	SD
									discarded	SD 3/19
30	250 ppm ICAL	V3-121-9	V3-121-6 V3-121-7 V3-121-8	2000 ppm	125 mL	1 mL	250 ppm	MeOH	2-5-14	SD
	50 ppm ICAL	V3-121-10	V3-121-9	250 ppm	200 mL	1 mL	50 ppm	MeOH	2-5-14	SD
	10 ppm ICAL	V3-121-11	V3-121-10	50 ppm	200 mL	1 mL	10 ppm	MeOH	2-5-14	SD
35	5 ppm ICAL	V3-121-12	V3-121-10	50 ppm	100 mL	1 mL	5 ppm	MeOH	2-5-14	SD

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AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 212051380 4 comps.
Exp: Jun 1,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 213121006 8 comps.
Exp: Apr 3,2014 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502B-10X 1 mL
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424 6 comps.
Exp: May 2,2016 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

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ANALYTE	LAB ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Initials
1ppm ICAL	V3-122-1	V3-121-10	5 ppm	20mL	1mL	1ppm	MeOH	2-5-14	SD
0.1ppm ICAL	V3-122-2	V3-121-1	1ppm	5mL	0.5mL	0.1ppm	MeOH	2-5-14	SD
ICV VOC LIQUIDS	V3122-3								
ICV VOC ADDs	V3-122-4								
ICV VOC GASES	V3-122-5								
50ppm ICV	V3-122-6	V3-122-3	2000 ppm	25mL	1mL	50ppm	MeOH	2-5-14	SD
		V3-122-4	1	1	1	1	1	1	
		V3-122-5	1	1	1	1	1	1	
100ppm ACRYL/DCB	V3-122-7	V3-117-11	100 ppm	500 µL	1mL	100ppm	MeOH	2-5-14	SD
		V3-117-12	100 ppm	500 µL					
50 ppm ACRYL/DCB	V3-122-8	~~V3-122-7~~ V3-122-11	100 ppm	500 mL	1mL	50 ppm	MeOH	2-5-14	SD
10 ppm ACRYL/DCB	V3-122-9	V3-122-8	50 ppm	200 µL	1mL	10 ppm	MeOH	2-5-14	SD
5 ppm ACRYL/DCB	V3-12210	V3-122-8	50 ppm	100 µL	1mL	5 ppm	MeOH	2-5-14	SD
50ppm CCV	V3-122-11	V3-121-6	2000 ppm	25mL	1mL	50 ppm	MeOH	2-7-14	SD
		V3121-7	2000 ppm	25mL	1	1	1	1	
		V3121-8	2000 ppm	25mL	1	1	1	1	
~~250 ppm IS~~	~~V3122-12~~	~~V3-121-1~~	~~2000 ppm~~	~~500 µL~~	~~4mL~~	~~250 ppm~~	~~MeOH~~	~~2-7-14~~	~~SD~~
~~250 ppm IS~~	~~V3122-13~~	~~V3-121-4~~	~~2000 ppm~~	~~500 µL~~	~~4mL~~	~~250 ppm~~	~~MeOH~~	~~2-18-14~~	~~SD~~
~~2000 ppm IS~~	~~V3122-14~~							2-24-14	SD
250ppm IS	V3-122-15	V3-121-1	2000 ppm	500µL	4mL	250 ppm	MeOH	2-24-14	SD
		V3-122-14	1	1	1	1	1	1	

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AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-502A-R3-10X 1 mL

Volatile Organic Compounds - Liquids

2000 µg/mL in Methanol

Lot: 213091216 55 comps.

Exp: Sep 19,2016 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY

WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.

STORAGE Refrig (0-5° C)

2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8260-ADD-10X 1 mL

Method 8260 Additions

2.0 mg/mL in MeOH

Lot: 214011413 8 comps.

Exp: Jun 3,2014 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY

WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.

STORAGE Freezo (<-10° C)

2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-502B-10X 1 mL

Volatile Organic Cmpds - Gases

2.0 mg/mL in MeOH

Lot: 213071142 6 comps.

Exp: Jul 17,2016 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY

WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.

STORAGE Refrig (0-5° C)

2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8260-IS-10X 1 mL

Internal Standard Mix

2.0 mg/mL in MeOH

Lot: 212111287 4 comps.

Exp: Nov 19,2022 HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY

STORAGE Ambient

2 Danger

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ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
50 ppm SS (tune)	V3-123-1	V3-121-4	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-26-14	SD
50 ppm CCV	V3-123-2	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	2-27-14	SD
		V3-121-7							
		V3-121-8							
50 ppm IS	V3-123-3	V3-122-14	2000 ppm	100 µL	4 mL	50 ppm	MeOH	2-27-14	EEM
50 ppm SS	V3-123-4	V3-121-4	2000 ppm	100 µL	4 mL	50 ppm	MeOH	2-27-14	EEM
~~2000 ppm SS~~	V3-123-5							2-28-14	SD
								spent 3-2-14	
250 ppm SS	V3-123-6	V3-121-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-28-14	SD
		V3-123-5							
~~50 ppm IS~~	~~V3-123-7~~	~~V3-122-14~~	~~2000 ppm~~	~~625 µL~~	~~25 mL~~	~~50 ppm~~	~~MeOH~~	~~3-6-14~~	~~SD~~
~~2000 ppm IS~~	V3-123-8							3-10-14	SD
								spent 3-12-14	SD
250 ppm IS	V3-123-9	V3-122-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
		V3-123-8							
250 ppm SS	V3-123-10	V3-123-5	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-10-14	SD
50 ppm CCV	V3-123-11	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-10-14	SD
		V3-121-7							
		V3-121-8							
50 ppm CCV	V3-123-12	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-13-14	SD
		V3-121-7							
		V3-121-8							
VOC GASES	V3-123-13							3-13-14	SD
50 ppm CCV	V3-123-14	V3-121-6	2000 ppm	25 µL	1 mL	50 ppm	MeOH	3-13-14	SD
		V3-121-7							
		V3-123-13							

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028
Exp: Nov 6,2023
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger!

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287
Exp: Nov 19,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger!

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424
Exp: May 2,2016
1 mL
6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger!

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Analyte	ID	ID	conc	Vol	Vol	conc			
250 ppm IS/SS	V3-124-1	V3-123-8	2000 ppm	250 µL	2 mL	250 ppm	MeOH	3-14-14	EEN
		V3-123-5		250 µL					
~~50 ppm MS~~	~~V3-124-2~~	~~V3-115-17~~	~~2500 ppm~~	~~500 µL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~ Discarded 3-24-14
50 ppm ICV	V3-124-3	V3-122-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-19-14	SD
		V3-122-4							
		V3-122-5							
VOC Liquids	V3-124-4							3-19-14	SD
VOC ADD's	V3-124-5							3-19-14	SD
250 ppm ICAL	V3-124-6	V3-123-13	2000 ppm	125 mL	1 mL	250 ppm	MeOH	3-19-14	SD
		V3-124-4							
		V3-124-5							
50 ppm ICAL	V3-124-7	V3-124-6	250 ppm	200	1 mL	50 ppm	MeOH	3-19-14	SD
10 ppm ICAL	V3-124-8	V3-124-7	50 ppm	200	1 mL	10 ppm	MeOH	3-19-14	SD
5 ppm ICAL	V3-124-9	V3-124-7	50 ppm	100	1 mL	5 ppm	MeOH	3-19-14	SD
1 ppm ICAL	V3-124-10	V3-124-7	50 ppm	20	1 mL	1 ppm	MeOH	3-19-14	SD
~~ICV 50 ppm~~	~~V3-124-11~~	~~V3-123-13~~	~~2000 ppm~~	~~25 mL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~ Discarded 3-24-14
		V3-124-4							
		V3-124-5							
2000 ppm SS	V3-124-12							3-21-14	SD
~~250 ppm IS~~	~~V3-124-13~~	~~V3-123-8~~	~~2000 ppm~~	~~500 mL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~ Discarded 3-24-14
~~250 ppm SS~~	~~V3-124-14~~	~~V3-123-5~~	~~2000 ppm~~	~~500 mL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-21-14~~	~~SD~~ Spent 3-31-14
		V3-124-12							
8000 ppm IS	V3-124-15							3-31-14	SD
									Spent SD 4-1-14

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214021286 8 comps.
Exp: Jun 28,2014 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Storage: Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6,2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INIT.
Albert	250 ppm IS	V3-125-1	V3-123-8 + V3-124-15	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-31-14	SD
Albert	250 ppm SS	V3-125-2	V3-124-12	2000 ppm	500 µL	4 mL	250 ppm	MeOH	3-31-14	SD
Albert	250 ppm IS	V3-125-3	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-9-14	SD
	50 ppm CCV	V3-125-4	V3-123-13	2000 ppm	25 µL	1 mL	50 ppm	MeOH	4-9-14	SD
			V3-124-4							
			V3-124-5							
10	50 ppm M.S.	V3-125-5	V3-115-17	2500 ppm	20 µL	1 mL	50 ppm	MeOH	4-9-14	SD
Albert	250 ppm SS	V3-125-6	V3-124-12	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-16-14	SD
Albert	250 ppm IS	V3-125-7	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-16-14	SD
	2000 ppm IS	V3-125-8							4-21-14	SD
15										
	2000 ppm SS	V3-125-9							4-21-14	SD
20										
Albert	250 ppm IS	V3-125-10	V3-124-15	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-21-14	SD
Albert	250 ppm SS	V3-125-11	V3-125-9	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-21-14	SD
Morris	50 ppm IS	V3125-12	V3-125-8	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
Morris	50 ppm SS	V3125-13	V3-125-9	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
25	50 ppm CCV	V3125-14	V3-123-13	2000 ppm	25 µL	1 mL	50 ppm	MeOH	4-28-14	SD
			V3-124-4							
			V3-124-5							
Albert	250 ppm IS	V3-125-15	V3-125-8	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-25-14	SD
Albert	250 ppm SS	V3125-16	V3-125-9	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-25-14	SD
30	50 ppm M.S.	V3125-17	V3-115-17	2500 ppm	20 µL	1 mL	50 ppm	MeOH	4-25-14	SD
	2000 ppm SS	V3-125-18							4-28-14	SD
Albert 35	250 ppm SS	V3-125-19	V3-125-9 + V3-125-18	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-28-14	SD

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AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287
Exp: Nov 19,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
Storage: Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028
Exp: Nov 6,2023
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028
Exp: Nov 6,2023
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
50 ppm CCV	V3126-1	V3-123-13	2000 ppm	25 mL	1 mL	50 ppm	MeOH	4.28.14	SD
		V3124-4	"	"	"	"	"	"	"
		V3124-5	"	"	"	"	"	"	"
250 ppm LS	V3126-2	V3-125-8	2000 ppm	250 mL	2 mL	250 ppm	MeOH	5-1-14	SD
250 ppm SS	V3126-3	V3-125-18	2000 ppm	250 mL	2 mL	250 ppm	MeOH	5-1-14	SD

Continued to page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

PROPRIETARY INFORMATION

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 2, 2014

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0180-121-09
Laboratory Reference No. 1404-199

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on April 23, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-199
Project: 0180-121-09

Case Narrative

Samples were collected on April 22, 2014 and received by the laboratory on April 23, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-199
Project: 0180-121-09

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-4A-140422	04-199-01	Water	4-22-14	4-23-14	
MW-4B-140422	04-199-02	Water	4-22-14	4-23-14	
MW-ES-10-140422	04-199-03	Water	4-22-14	4-23-14	
RIN-2-140422	04-199-04	Water	4-22-14	4-23-14	
DUP-2-140422	04-199-05	Water	4-22-14	4-23-14	
TB-2-140422	04-199-06	Water	4-22-14	4-23-14	

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-199
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-4A-140422**					
Laboratory ID:	04-199-01					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*99*	*71-120*				

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-199
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-4B-140422**					
Laboratory ID:	04-199-02					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*98*	*71-120*				

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-199
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-ES-10-140422**					
Laboratory ID:	04-199-03					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	35	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*62-122*				
Toluene-d8	*102*	*70-120*				
4-Bromofluorobenzene	*101*	*71-120*				

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-199
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RIN-2-140422**					
Laboratory ID:	04-199-04					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*98*	*71-120*				

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-199
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DUP-2-140422**					
Laboratory ID:	04-199-05					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*99*	*71-120*				

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-199
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TB-2-140422**					
Laboratory ID:	04-199-06					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*99*	*71-120*				

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-199
Project: 0180-121-09

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0501W1					
Vinyl Chloride	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Trichloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-1-14	5-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*92*	*71-120*				

Date of Report: May 2, 2014
Samples Submitted: April 23, 2014
Laboratory Reference: 1404-199
Project: 0180-121-09

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0501W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.4**	**10.4**	10.0	10.0	104	104	63-142	0	17	
Benzene	**9.70**	**9.85**	10.0	10.0	97	99	78-125	2	15	
Trichloroethene	**9.61**	**9.40**	10.0	10.0	96	94	80-125	2	15	
Toluene	**9.71**	**9.86**	10.0	10.0	97	99	80-125	2	15	
Chlorobenzene	**10.7**	**10.5**	10.0	10.0	107	105	80-140	2	15	
Surrogate:										
Dibromofluoromethane					*88*	*93*	*62-122*			
Toluene-d8					*98*	*99*	*70-120*			
4-Bromofluorobenzene					*93*	*94*	*71-120*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

13

Company: GEI
Project Number: 0180-121-09
Project Name: Palermo
Project Manager: Nick Rohrbach
Sampled by: PDR/HLM

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 04-199

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C Project list 10	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
1	MW-4A-140422	4/22/14	0950	GW	3					X											
2	MW-4B-140422		1055		3					X											
3	MW-ES-10-140422		1210		3					X											
4	RIN-2-140422		1230		3					X											
5	DUP-2-140422				3					X											
6	TB-2-140422				2					X											

	Signature	Company	Date	Time
Relinquished	[signature]	GEI	4/22/14	830
Received	[signature]	Spdy	4/23	830
Relinquished	[signature]	"	4/23	1215
Received	[signature]	GEL	4/23/14	1215
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☑ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 0180-121-09

OnSite Project Number: 04-199

Initiated by: MV

Date Initiated: 4/23/14

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 3		
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A			
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No	1 2 3 4	
2.2 Was the COC legible and written in permanent ink?	Yes	No	1 2 3 4	
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No	1 2 3 4	
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No	1 2 3 4	
2.5 Were all of the samples listed on the COC submitted?	Yes	No	1 2 3 4	
2.6 Were any of the samples submitted omitted from the COC?	Yes	No	1 2 3 4	

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No	1 2 3 4	
3.2 Were any sample labels missing or illegible?	Yes	No	1 2 3 4	
3.3 Have the correct containers been used for each analysis requested?	Yes	No	1 2 3 4	
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and air bubbles?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

Complete Data Package

- Volatiles by EPA 8260C

Volatiles by EPA 8260C Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501017.d
Acq On : 1 May 2014 2:07 pm
Operator :
Sample : 04-199-01b
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 01 14:36:05 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

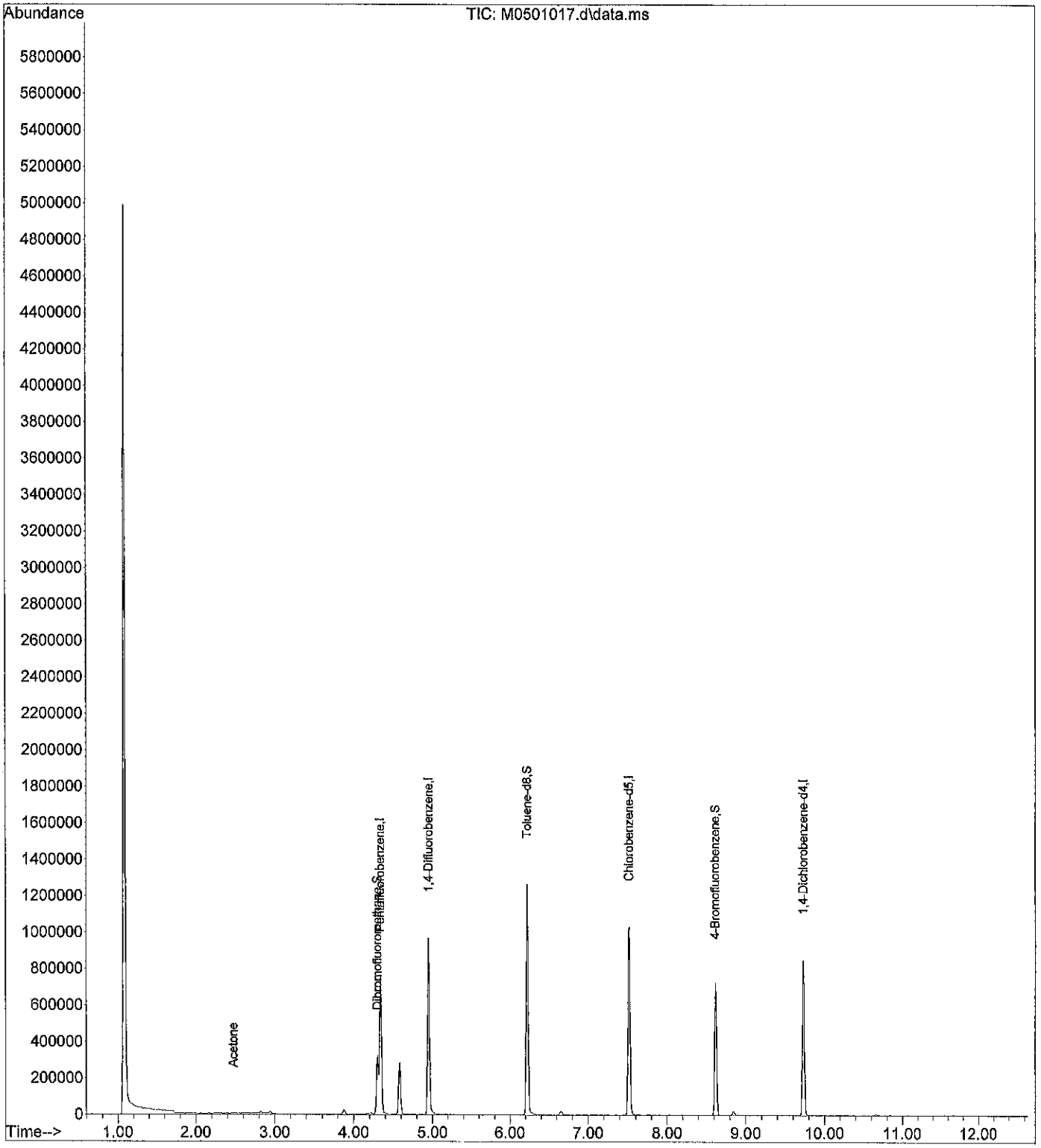
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	494974	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	717070	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	577797	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	241339	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	174210	9.73	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 97.30%			
36) Toluene-d8	6.220	98	783337	9.98	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.80%			
54) 4-Bromofluorobenzene	8.616	95	245994	9.91	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.10%			
Target Compounds						Qvalue
9) Acetone	2.477	43	1938	0.61	ppb	92

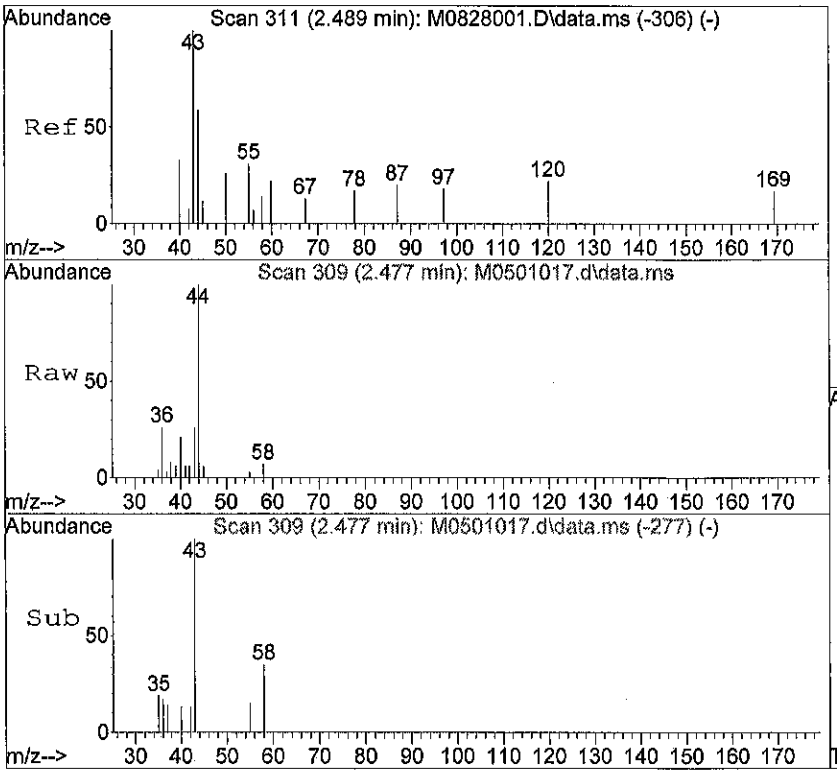
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501017.d
Acq On : 1 May 2014 2:07 pm
Operator :
Sample : 04-199-01b
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 01 14:36:05 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

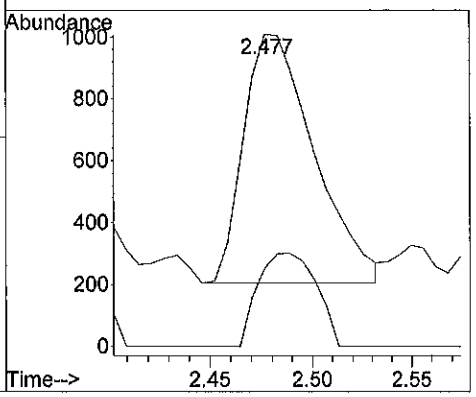




#9
Acetone
Concen: 0.61 ppb
RT: 2.477 min Scan# 309
Delta R.T. -0.006 min
Lab File: M0501017.d
Acq: 1 May 2014 2:07 pm

Tgt Ion: 43 Resp: 1938

Ion	Ratio	Lower	Upper
43	100		
58	30.9	28.6	43.0



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501018.d
Acq On : 1 May 2014 2:31 pm
Operator :
Sample : 04-199-02b
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 01 14:56:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

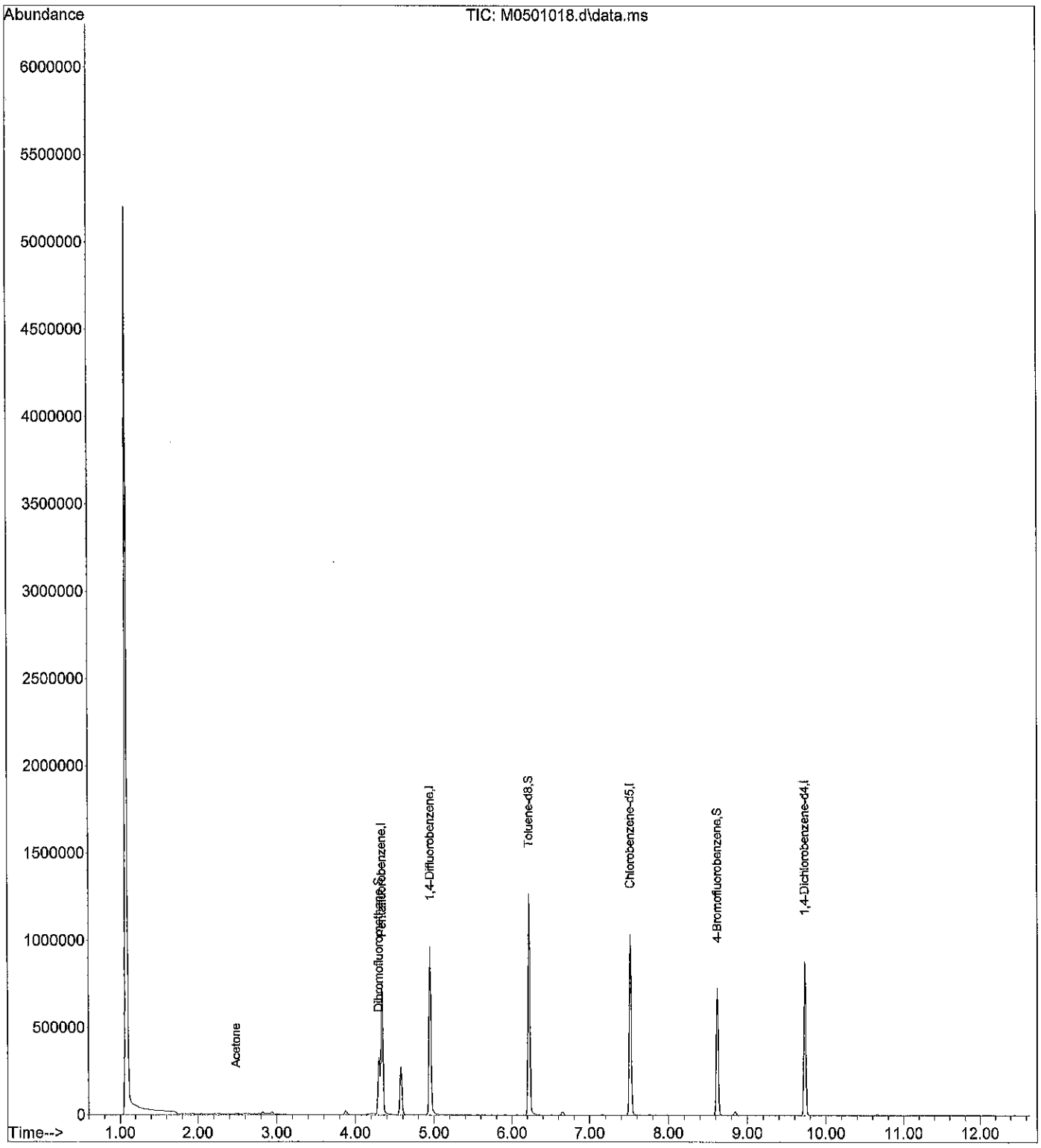
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	497406	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	719948	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	585889	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	250673	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	175002	9.72	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 97.20%			
36) Toluene-d8	6.220	98	788910	10.01	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.10%			
54) 4-Bromofluorobenzene	8.622	95	246538	9.79	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.90%			
Target Compounds						Qvalue
9) Acetone	2.483	43	2789	0.87	ppb	95

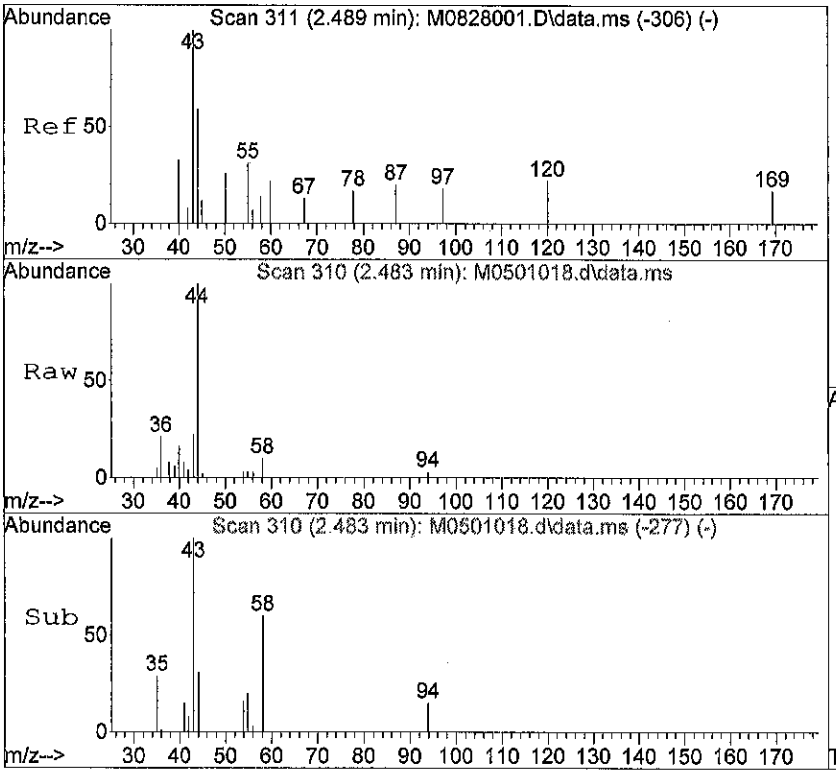
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501018.d
Acq On : 1 May 2014 2:31 pm
Operator :
Sample : 04-199-02b
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 01 14:56:19 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

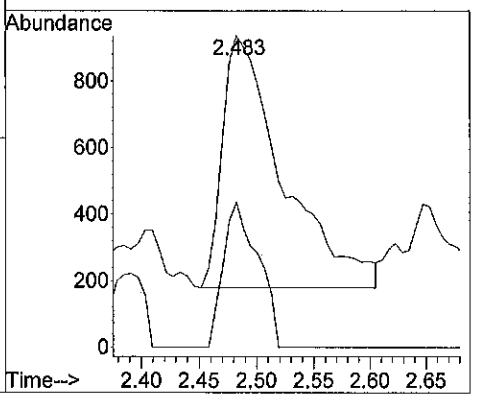




#9
Acetone
Concen: 0.87 ppb
RT: 2.483 min Scan# 310
Delta R.T. -0.000 min
Lab File: M0501018.d
Acq: 1 May 2014 2:31 pm

Tgt Ion: 43 Resp: 2789

Ion	Ratio	Lower	Upper
43	100		
58	33.1	28.6	43.0



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501019.d
Acq On : 1 May 2014 2:54 pm
Operator :
Sample : 04-199-03b
Misc :
ALS Vial : 19 Sample Multiplier: 1

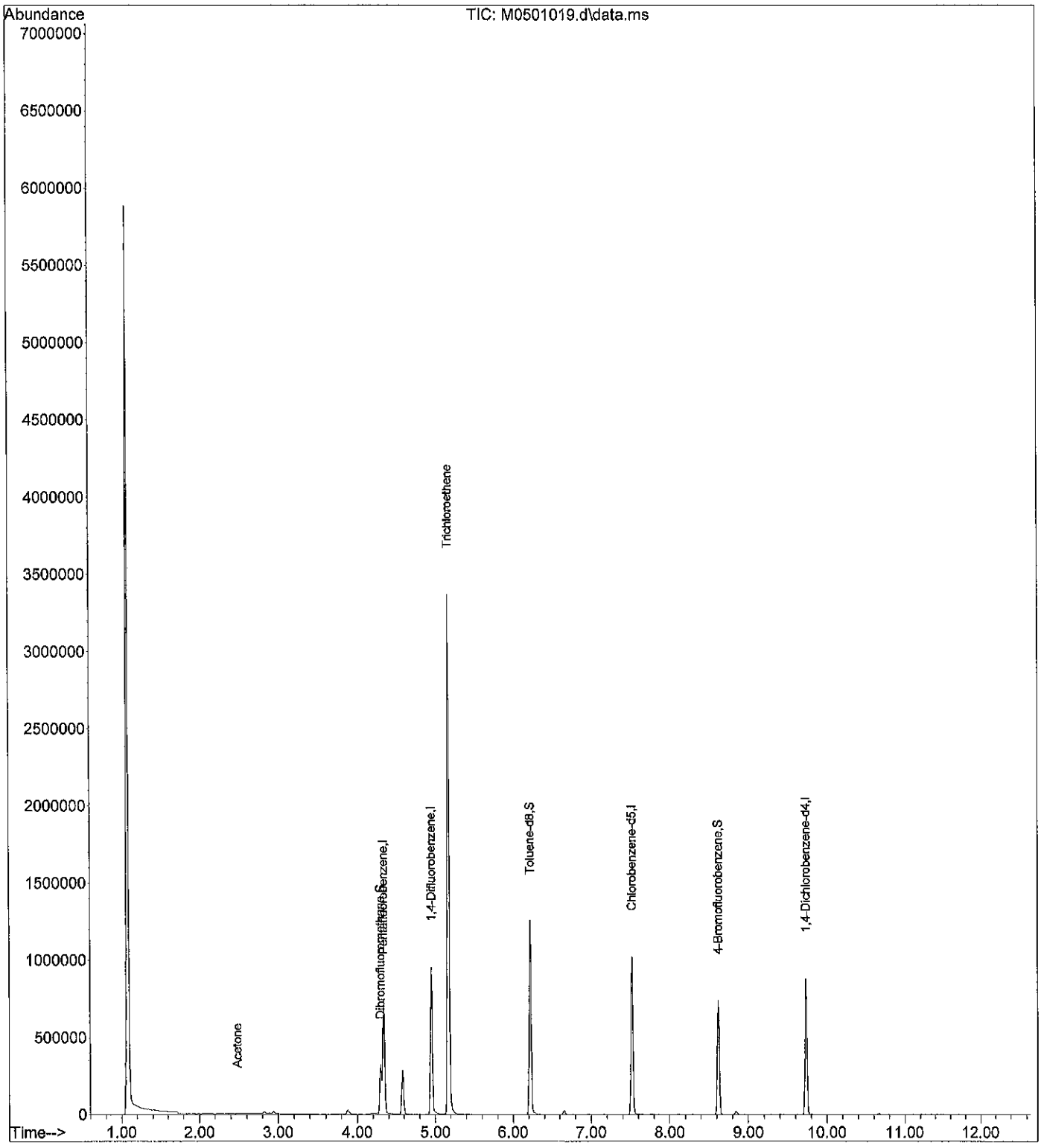
Quant Time: May 02 06:52:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

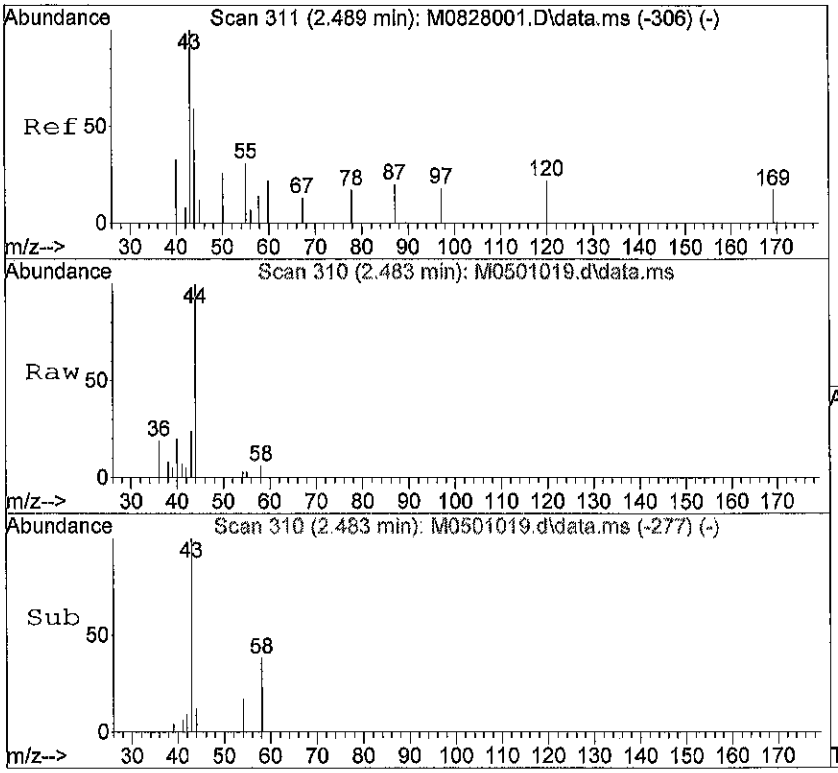
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	488065	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	699989	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	577666	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	250766	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	173127	9.80	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 98.00%			
36) Toluene-d8	6.220	98	779636	10.18	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 101.80%			
54) 4-Bromofluorobenzene	8.622	95	249488	10.05	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 100.50%			
Target Compounds						Qvalue
9) Acetone	2.483	43	1876	0.59	ppb	91
29) Trichloroethene	5.171	130	1077139	34.81	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501019.d
Acq On : 1 May 2014 2:54 pm
Operator :
Sample : 04-199-03b
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 02 06:52:04 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

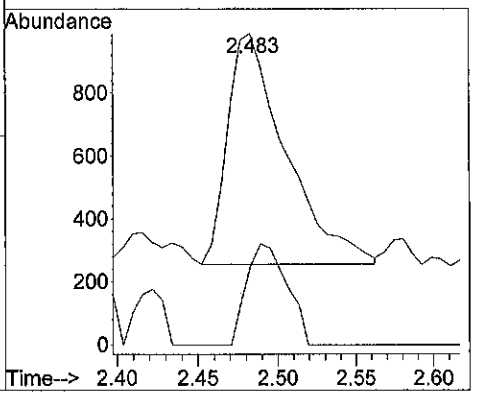


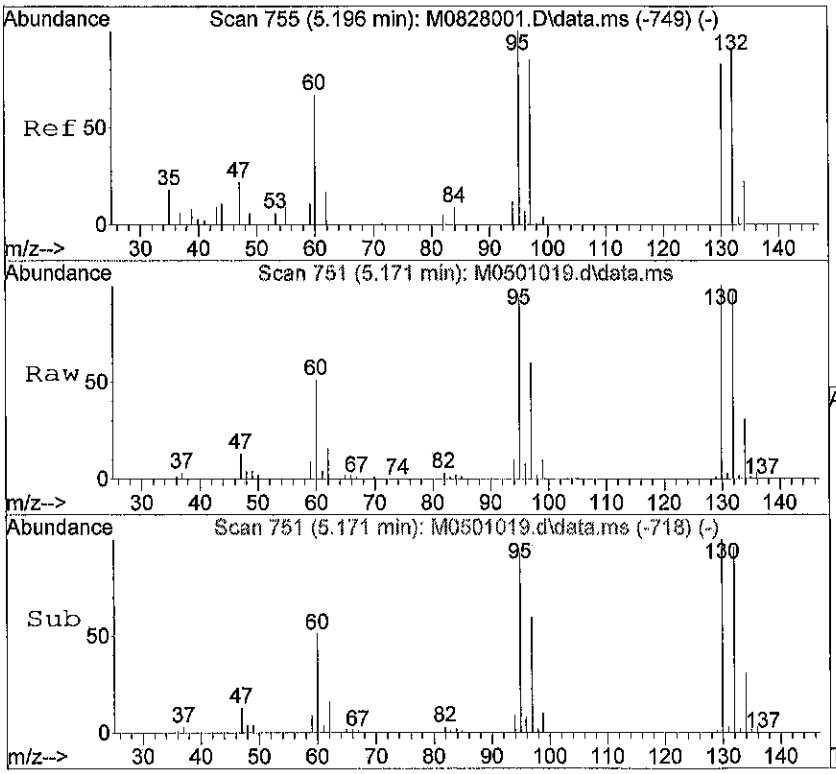


#9
Acetone
Concen: 0.59 ppb
RT: 2.483 min Scan# 310
Delta R.T. -0.000 min
Lab File: M0501019.d
Acq: 1 May 2014 2:54 pm

Tgt Ion: 43 Resp: 1876

Ion	Ratio	Lower	Upper
43	100		
58	30.3	28.6	43.0

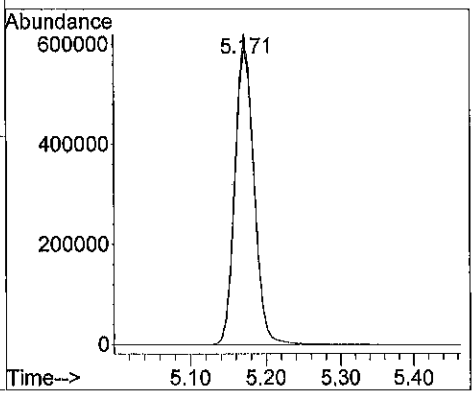




#29
Trichloroethene
Concen: 34.81 ppb
RT: 5.171 min Scan# 751
Delta R.T. 0.000 min
Lab File: M0501019.d
Acq: 1 May 2014 2:54 pm

Tgt Ion:130 Resp: 1077139

Ion	Ratio	Lower	Upper
130	100		
132	96.2	77.0	115.4



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501020.d
Acq On : 1 May 2014 3:18 pm
Operator :
Sample : 04-199-04b
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 02 06:52:43 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

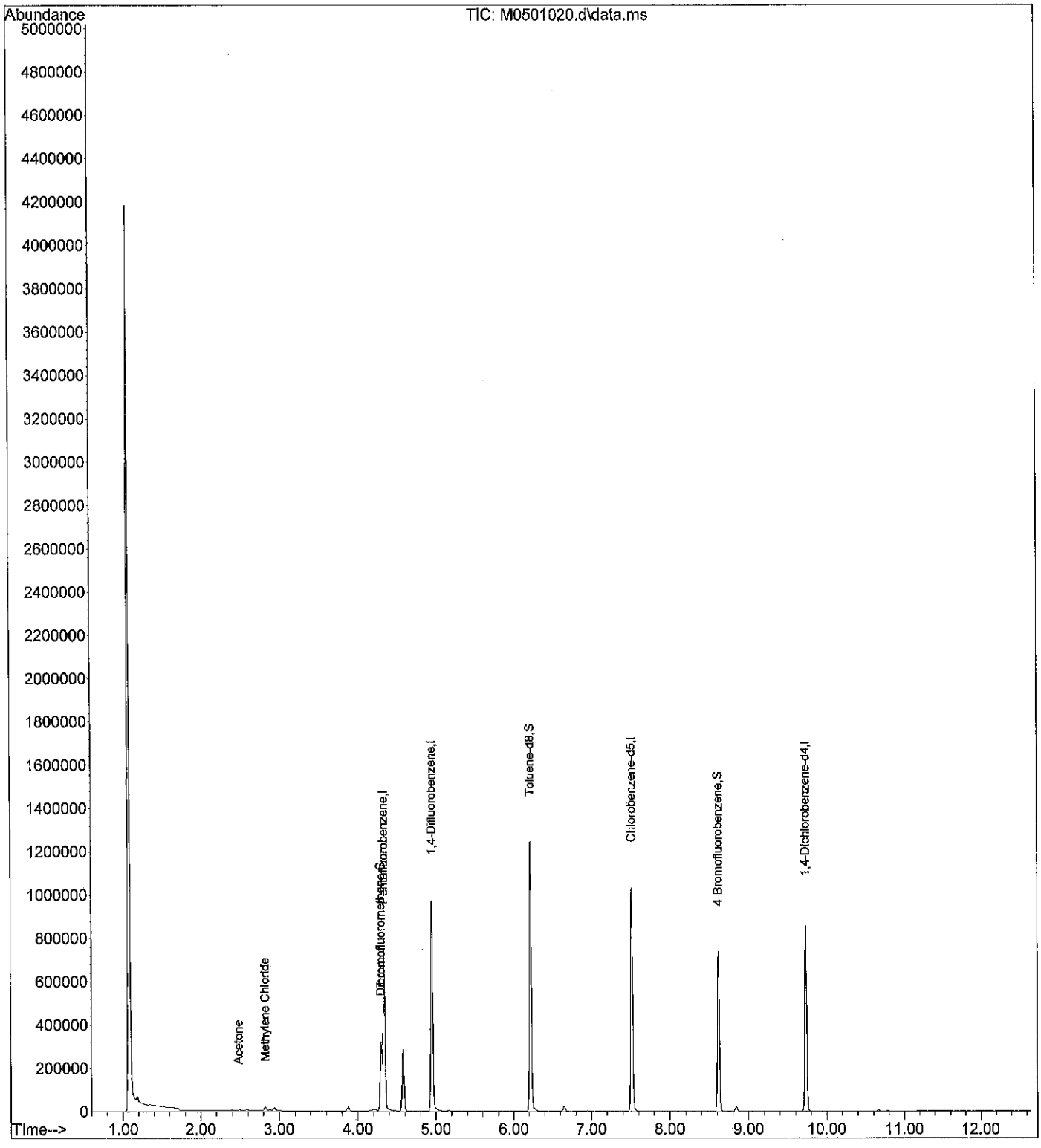
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	488625	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	711943	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	579762	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	249674	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	173741	9.83	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 98.30%			
36) Toluene-d8	6.220	98	776880	9.97	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.70%			
54) 4-Bromofluorobenzene	8.622	95	243620	9.78	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.80%			
Target Compounds						Qvalue
9) Acetone	2.483	43	1850	0.59	ppb	# 58
12) Methylene Chloride	2.824	49	9385	0.22	ppb	96

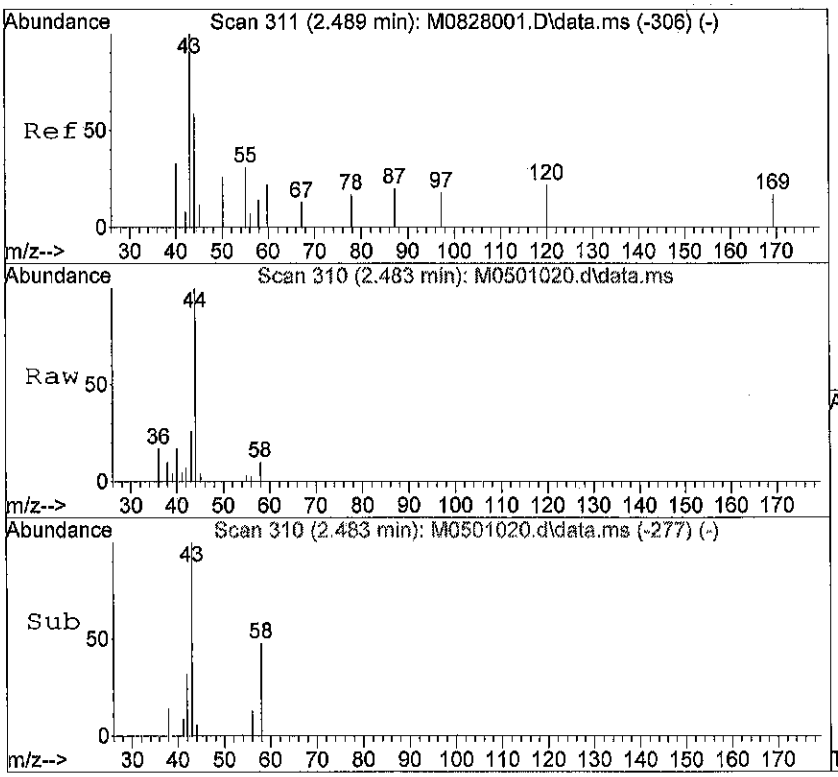
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501020.d
Acq On : 1 May 2014 3:18 pm
Operator :
Sample : 04-199-04b
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 02 06:52:43 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

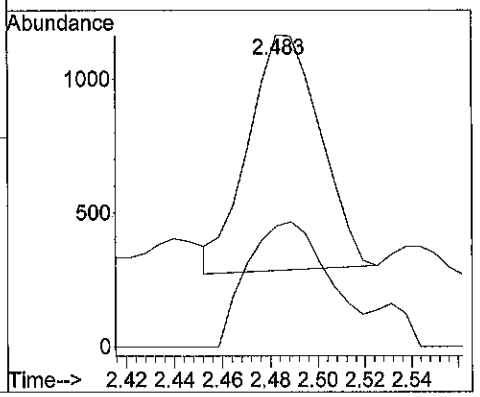


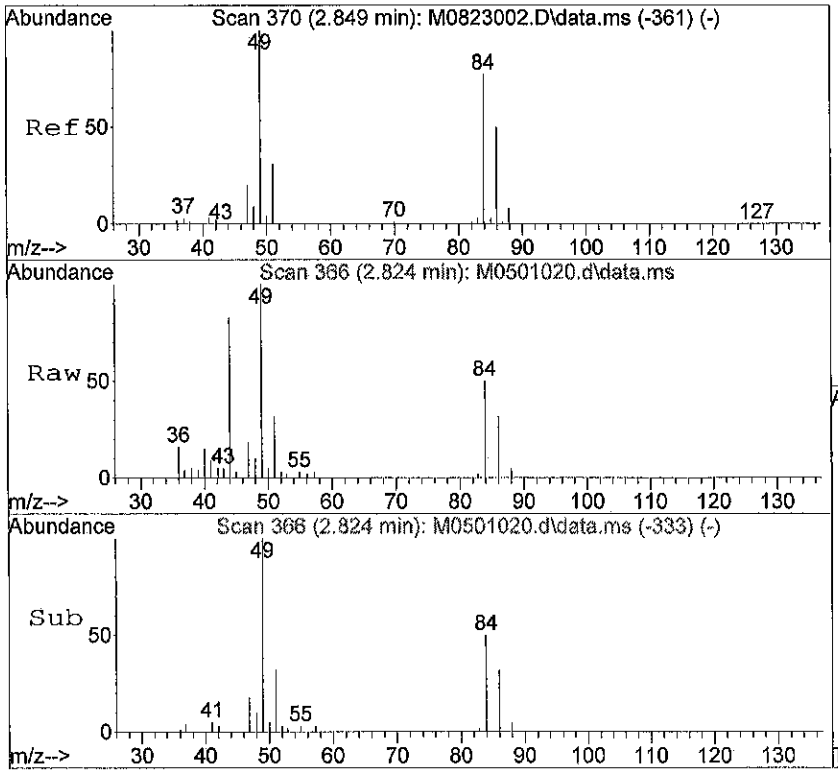


#9
Acetone
Concen: 0.59 ppb
RT: 2.483 min Scan# 310
Delta R.T. -0.000 min
Lab File: M0501020.d
Acq: 1 May 2014 3:18 pm

Tgt Ion: 43 Resp: 1850

Ion	Ratio	Lower	Upper
43	100		
58	60.5	28.6	43.0#

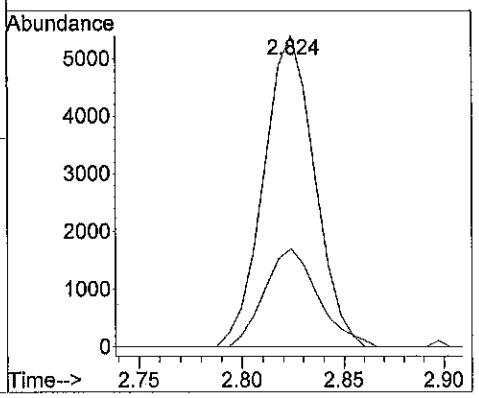




#12
Methylene Chloride
Concen: 0.22 ppb
RT: 2.824 min Scan# 366
Delta R.T. 0.000 min
Lab File: M0501020.d
Acq: 1 May 2014 3:18 pm

Tgt Ion: 49 Resp: 9385

Ion	Ratio	Lower	Upper
49	100		
51	33.3	24.8	37.2



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501021.d
Acq On : 1 May 2014 3:41 pm
Operator :
Sample : 04-199-05b
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 02 06:53:34 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

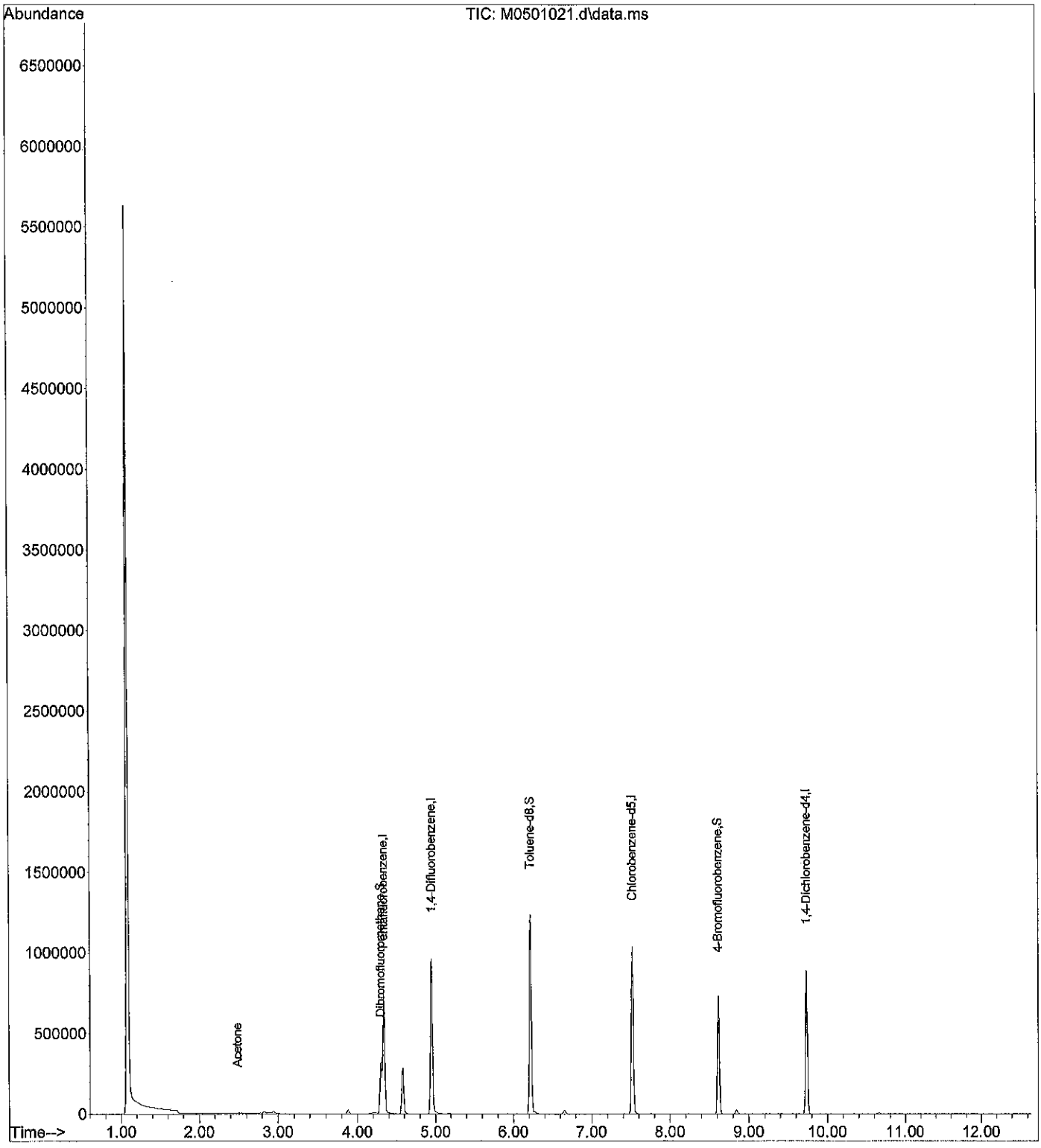
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	491553	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	710676	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	579286	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	250923	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	170678	9.60	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 96.00%			
36) Toluene-d8	6.220	98	775268	9.97	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.70%			
54) 4-Bromofluorobenzene	8.616	95	247560	9.95	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.50%			
Target Compounds						Qvalue
9) Acetone	2.489	43	1773	0.56	ppb	89

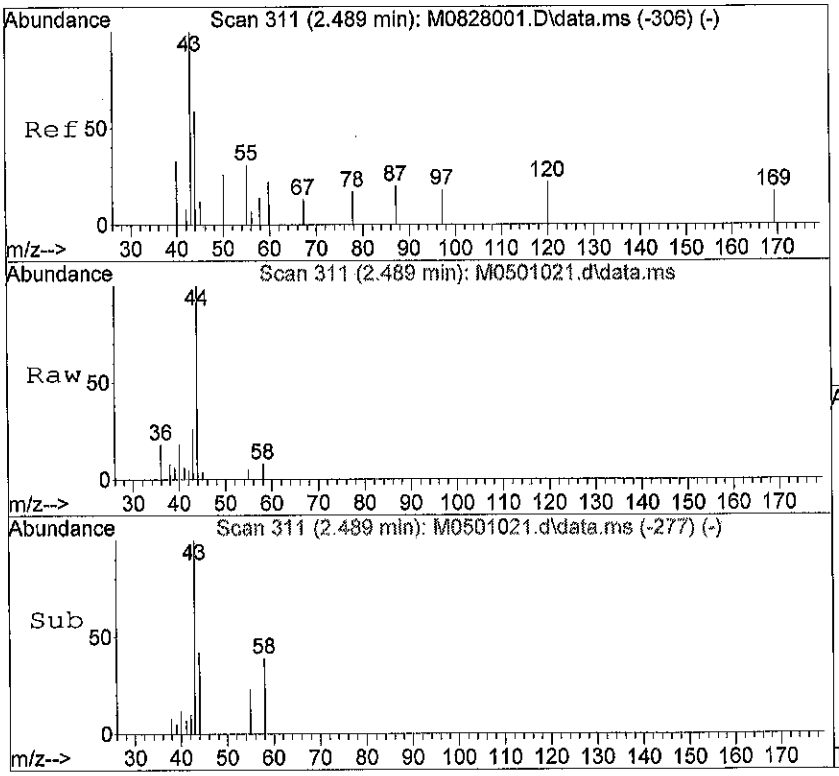
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501021.d
Acq On : 1 May 2014 3:41 pm
Operator :
Sample : 04-199-05b
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 02 06:53:34 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

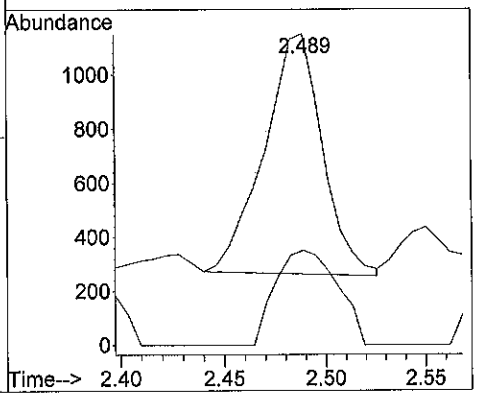




#9
Acetone
Concen: 0.56 ppb
RT: 2.489 min Scan# 311
Delta R.T. 0.006 min
Lab File: M0501021.d
Acq: 1 May 2014 3:41 pm

Tgt Ion: 43 Resp: 1773

Ion	Ratio	Lower	Upper
43	100		
58	42.5	28.6	43.0



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501022.d
Acq On : 1 May 2014 4:05 pm
Operator :
Sample : 04-199-06b
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: May 02 06:54:27 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

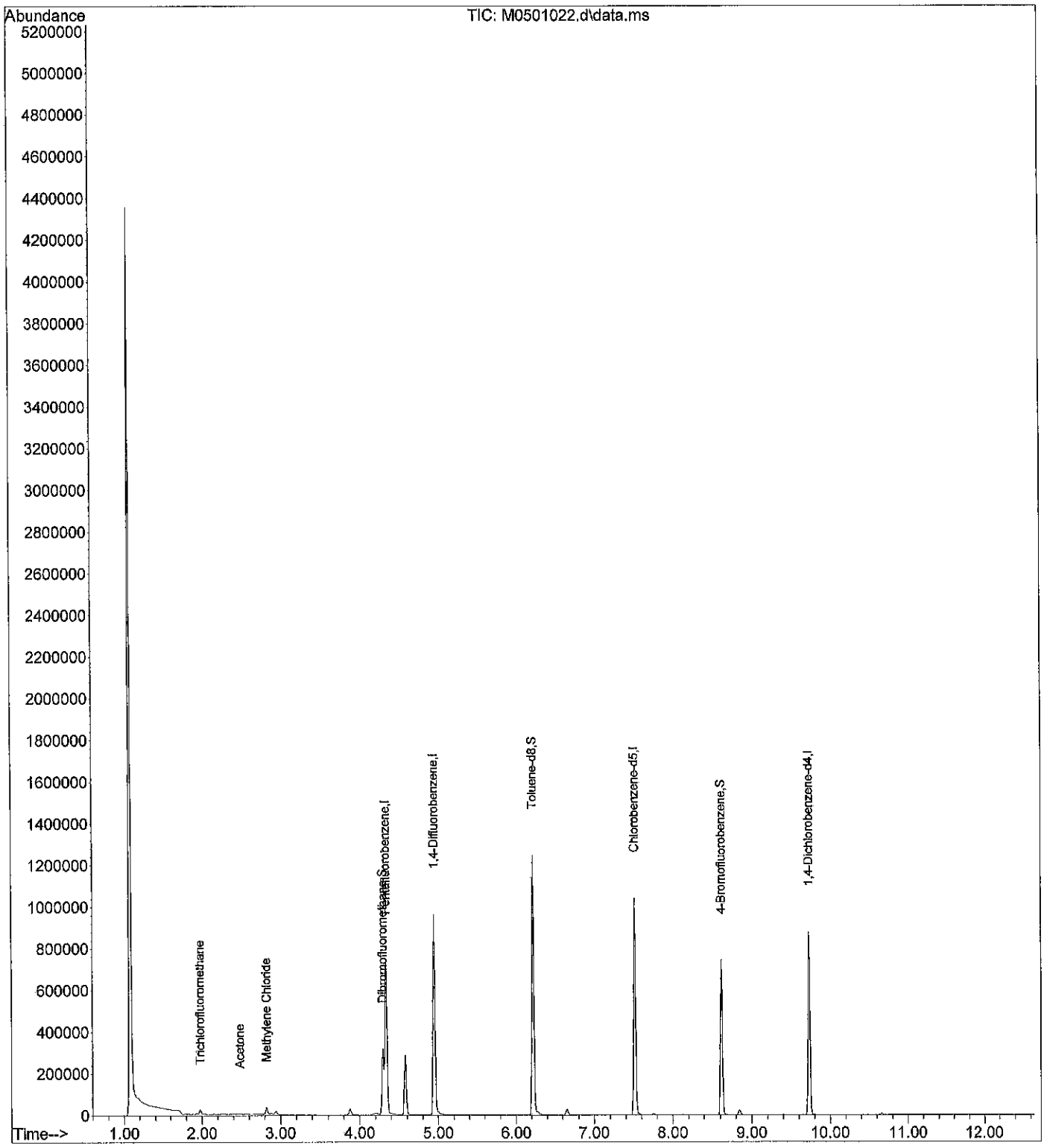
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	490364	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	709114	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	580094	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	249395	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	173258	9.76	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 97.60%				
36) Toluene-d8	6.220	98	775487	9.99	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.90%				
54) 4-Bromofluorobenzene	8.622	95	247782	9.94	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.40%				
Target Compounds							Qvalue
7) Trichlorofluoromethane	1.977	101	15307	0.33	ppb		100
9) Acetone	2.483	43	2843	0.90	ppb	#	86
12) Methylene Chloride	2.824	49	17779	0.42	ppb		94

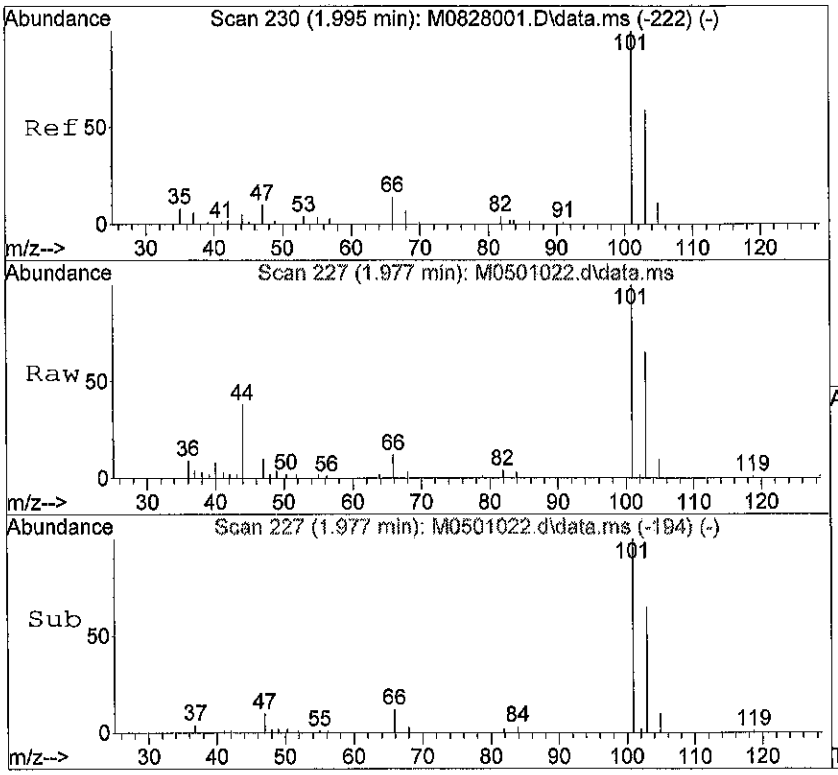
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501022.d
Acq On : 1 May 2014 4:05 pm
Operator :
Sample : 04-199-06b
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: May 02 06:54:27 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

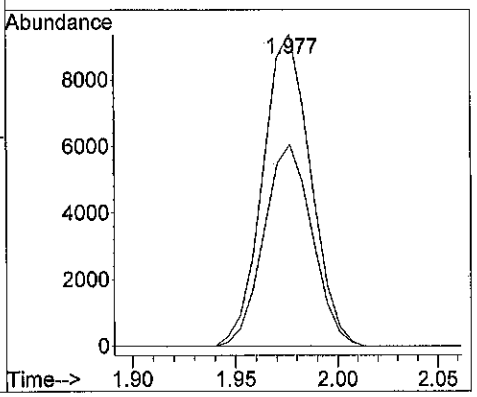


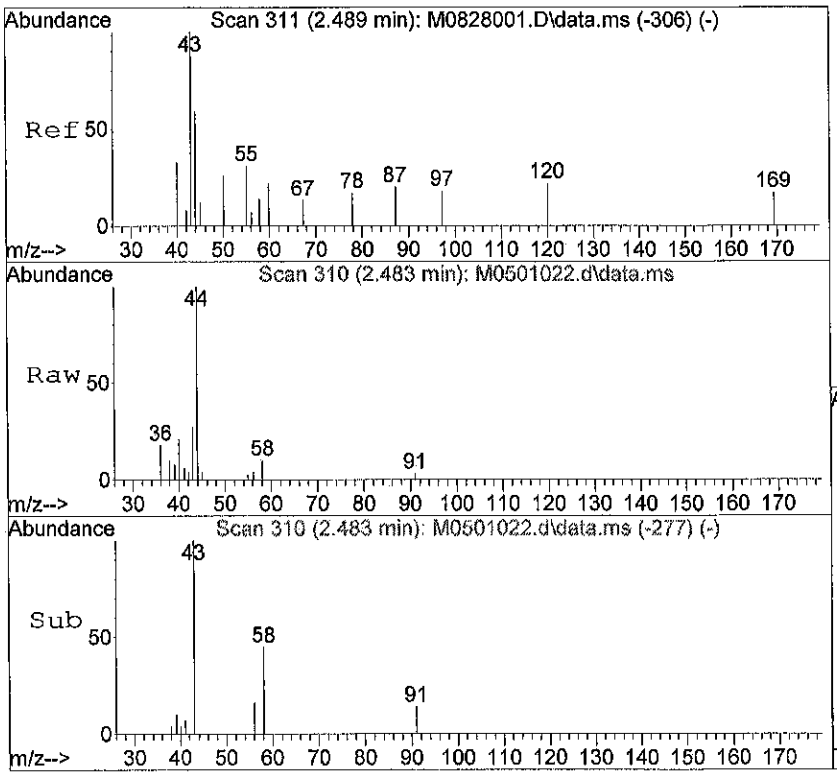


#7
Trichlorofluoromethane
Concen: 0.33 ppb
RT: 1.977 min Scan# 227
Delta R.T. -0.000 min
Lab File: M0501022.d
Acq: 1 May 2014 4:05 pm

Tgt Ion:101 Resp: 15307

Ion	Ratio	Lower	Upper
101	100		
103	65.1	52.2	78.2

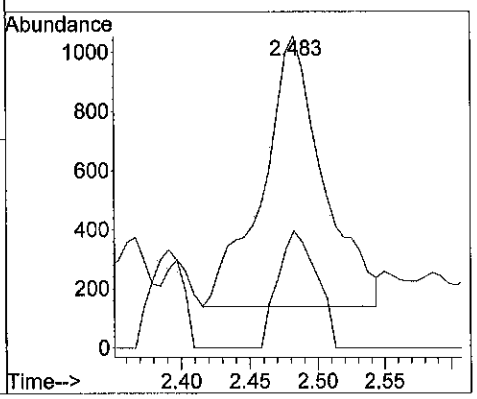


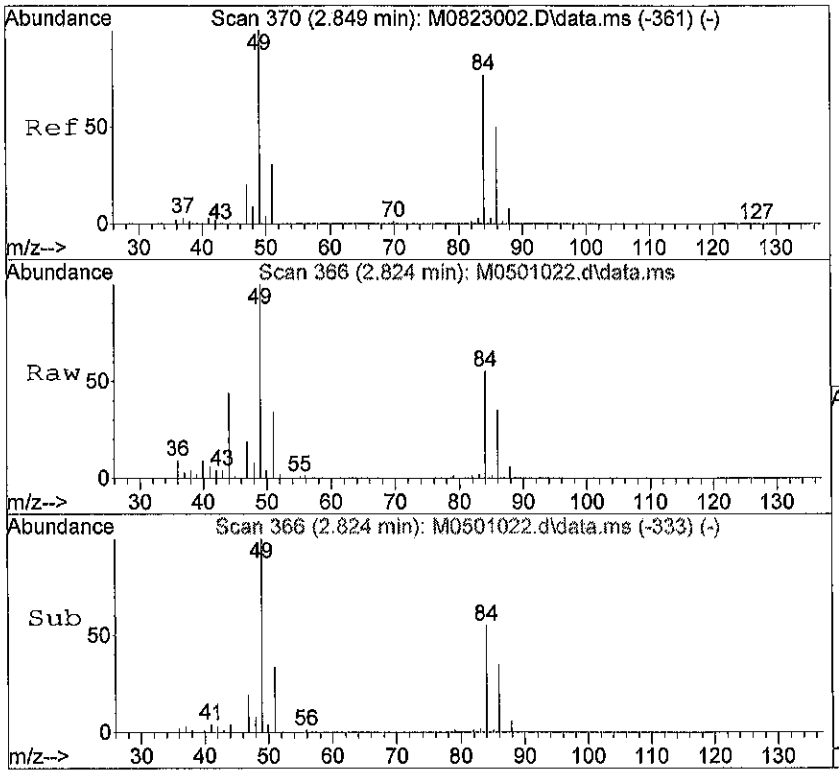


#9
Acetone
Concen: 0.90 ppb
RT: 2.483 min Scan# 310
Delta R.T. -0.000 min
Lab File: M0501022.d
Acq: 1 May 2014 4:05 pm

Tgt Ion: 43 Resp: 2843

Ion	Ratio	Lower	Upper
43	100		
58	27.8	28.6	43.0#

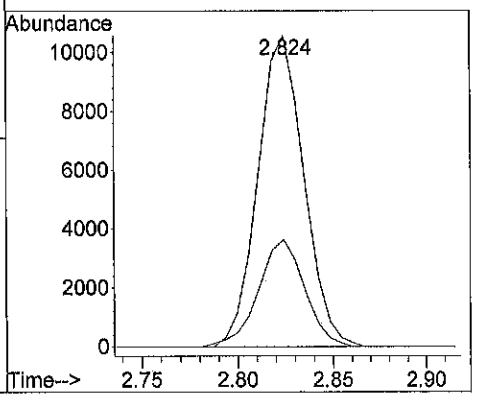




#12
Methylene Chloride
Concen: 0.42 ppb
RT: 2.824 min Scan# 366
Delta R.T. 0.000 min
Lab File: M0501022.d
Acq: 1 May 2014 4:05 pm

Tgt Ion: 49 Resp: 17779

Ion	Ratio	Lower	Upper
49	100		
51	34.5	24.8	37.2



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501005.d
Acq On : 1 May 2014 9:17 am
Operator :
Sample : MB0501W1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 01 10:30:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

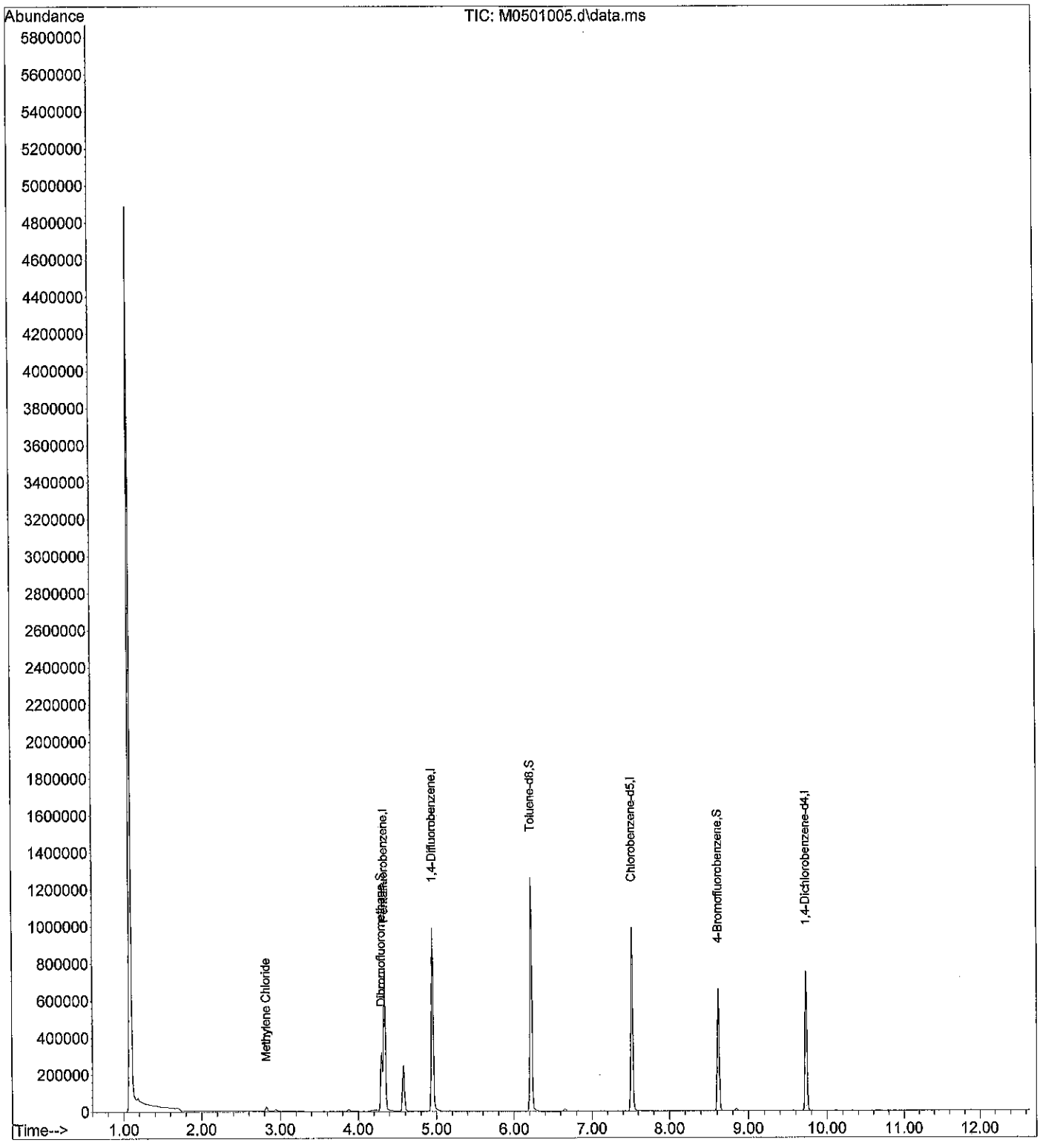
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	509176	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	720453	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	553393	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	213784	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	174716	9.48	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 94.80%			
36) Toluene-d8	6.220	98	783239	9.93	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.30%			
54) 4-Bromofluorobenzene	8.622	95	219426	9.23	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.30%			
Target Compounds						Qvalue
12) Methylene Chloride	2.824	49	13283	0.30	ppb	100

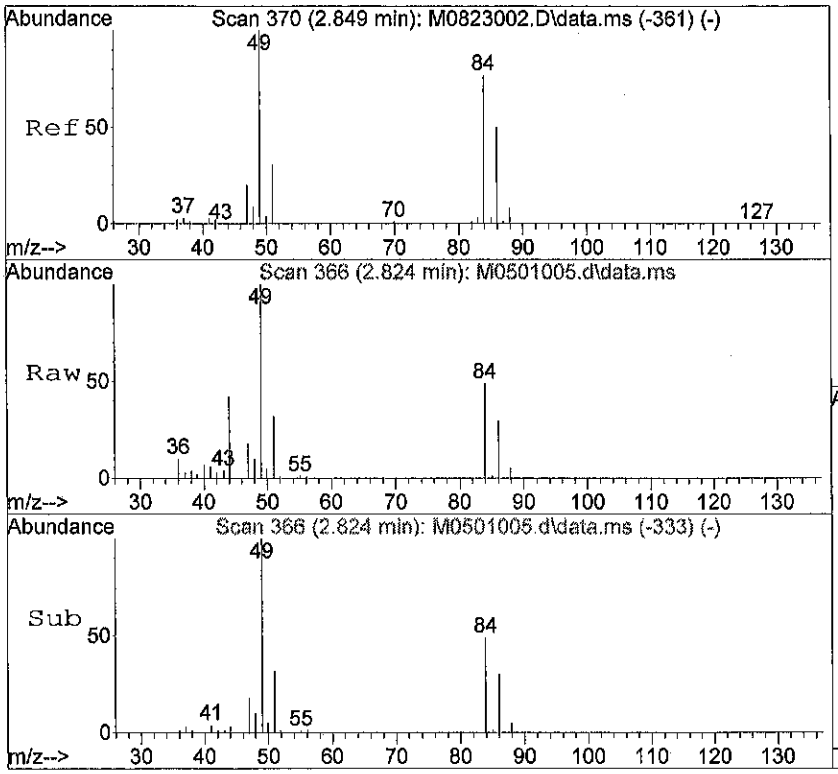
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501005.d
Acq On : 1 May 2014 9:17 am
Operator :
Sample : MB0501W1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 01 10:30:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

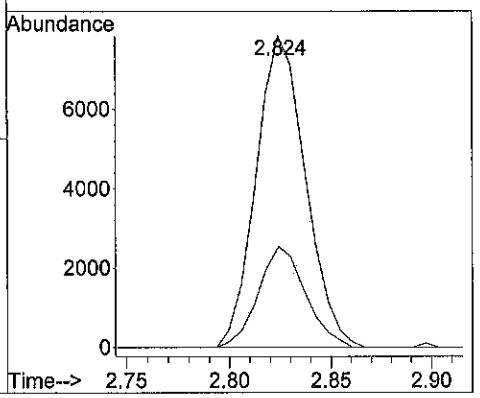




#12
Methylene Chloride
Concen: 0.30 ppb
RT: 2.824 min Scan# 366
Delta R.T. 0.000 min
Lab File: M0501005.d
Acq: 1 May 2014 9:17 am

Tgt Ion: 49 Resp: 13283

Ion	Ratio	Lower	Upper
49	100		
51	30.9	24.8	37.2



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501003.d
Acq On : 1 May 2014 8:31 am
Operator :
Sample : SB0501W1
Misc : V3-125-17
ALS Vial : 3 Sample Multiplier: 1

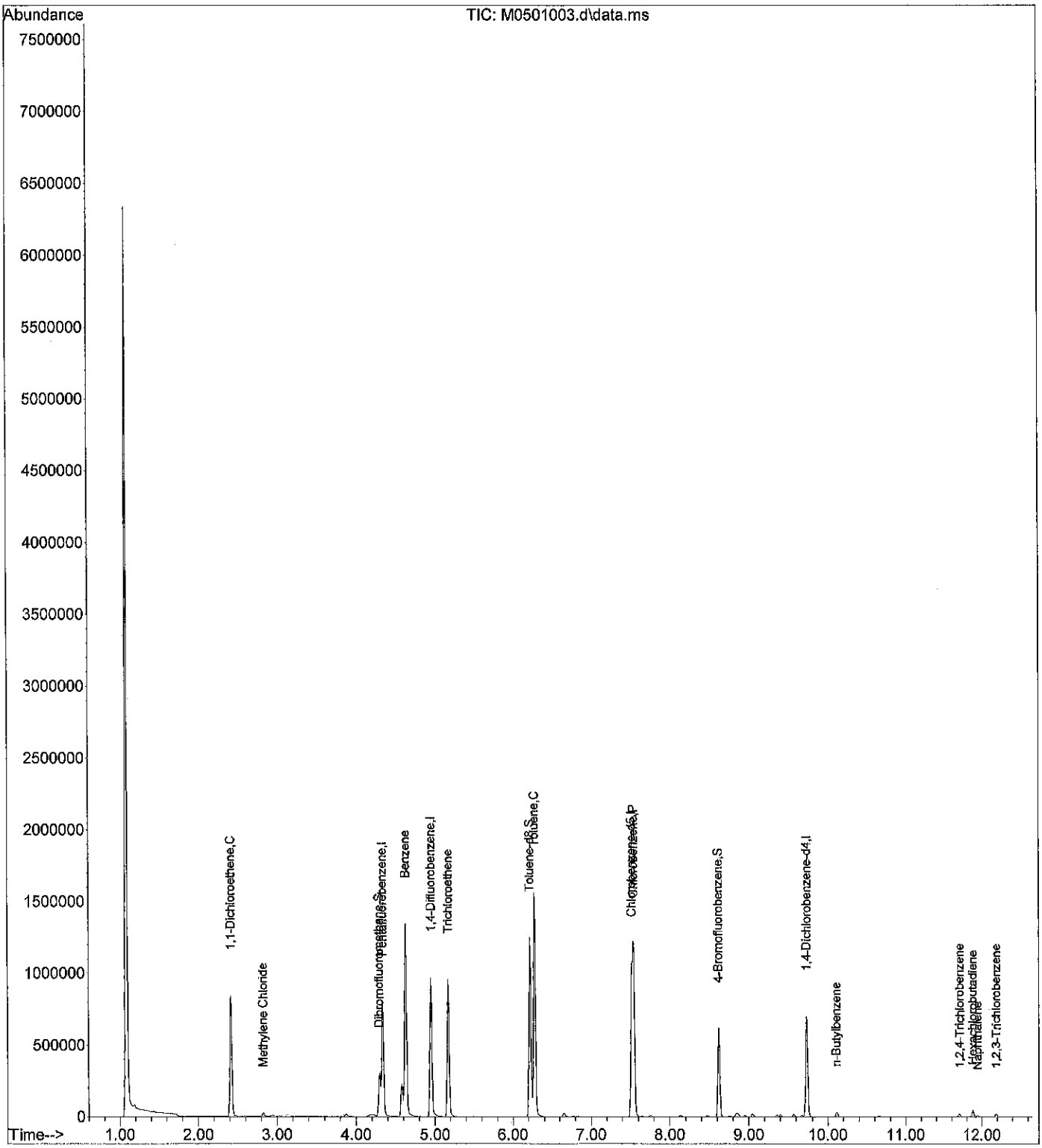
Quant Time: May 01 08:45:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	524083	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	736760	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	529054	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	194560	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.293	111	166956	8.80	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 88.00%			
36) Toluene-d8	6.220	98	787151	9.76	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 97.60%			
54) 4-Bromofluorobenzene	8.616	95	210378	9.26	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 92.60%			
Target Compounds						Qvalue
8) 1,1-Dichloroethene	2.416	61	540004	10.41	ppb	98
12) Methylene Chloride	2.824	49	13664	0.30	ppb	98
26) Benzene	4.629	78	1009555	9.70	ppb	100
29) Trichloroethene	5.171	130	313038	9.61	ppb	99
37) Toluene	6.275	91	1084826	9.71	ppb	99
46) Chlorobenzene	7.543	112	626938	10.65	ppb	99
70) n-Butylbenzene	10.109	91	13271	0.23	ppb	98
72) 1,2,4-Trichlorobenzene	11.707	180	6788	0.87	ppb	92
73) Hexachlorobutadiene	11.877	225	9408	1.26	ppb	98
74) Naphthalene	11.944	128	7101	1.32	ppb	99
75) 1,2,3-Trichlorobenzene	12.188	180	6934	1.39	ppb	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501003.d
Acq On : 1 May 2014 8:31 am
Operator :
Sample : SB0501W1
Misc : V3-125-17
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 01 08:45:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501004.d
Acq On : 1 May 2014 8:54 am
Operator :
Sample : SBD0501W1
Misc : V3-125-17
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 01 09:16:44 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

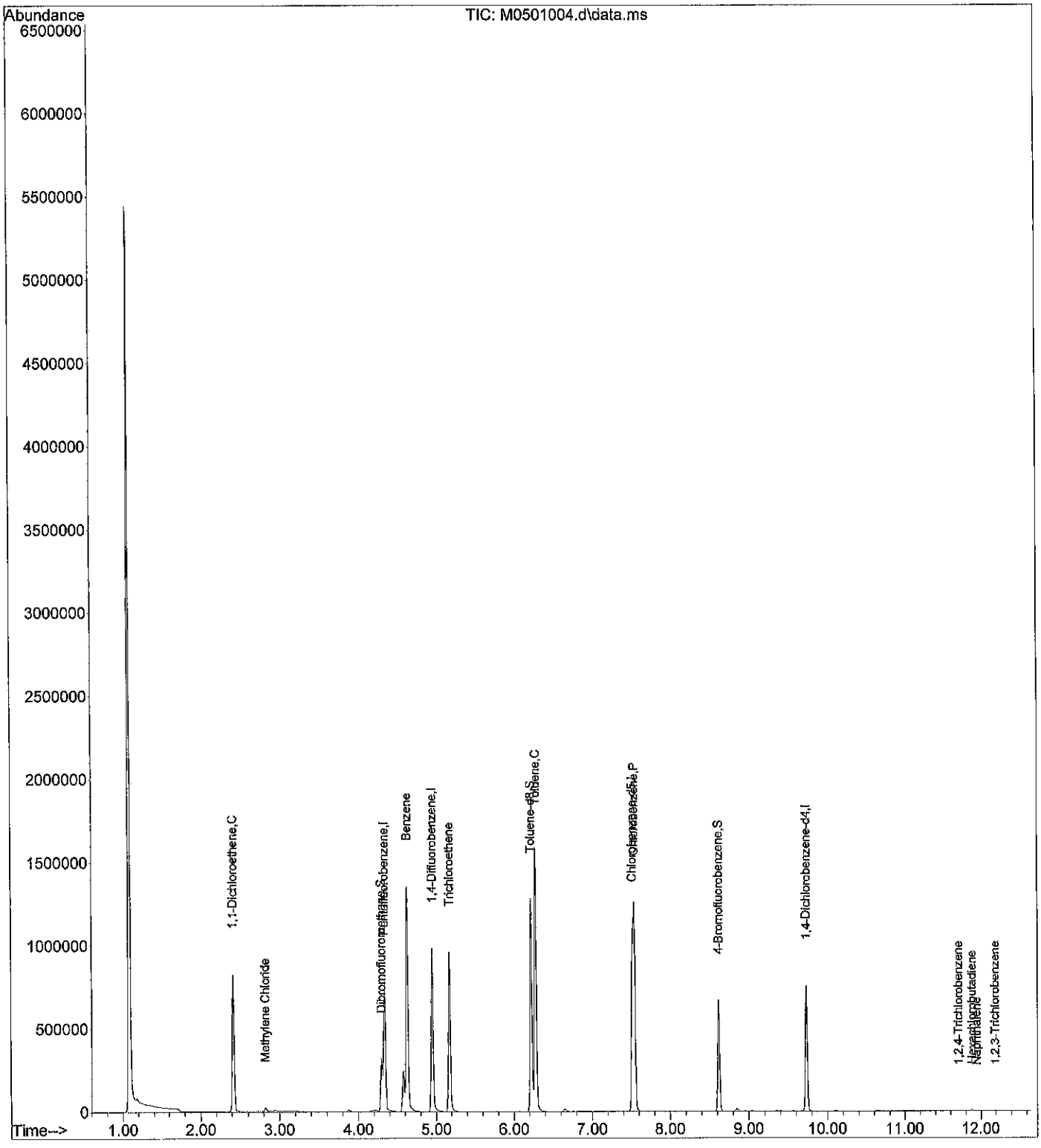
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	515554	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	733834	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	553906	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	213829	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	174227	9.34	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 93.40%				
36) Toluene-d8	6.220	98	794699	9.90	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.00%				
54) 4-Bromofluorobenzene	8.622	95	224258	9.42	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 94.20%				
Target Compounds							Qvalue
8) 1,1-Dichloroethene	2.416	61	531004	10.40	ppb		100
12) Methylene Chloride	2.824	49	13744	0.31	ppb		94
26) Benzene	4.629	78	1008596	9.85	ppb		100
29) Trichloroethene	5.171	130	305052	9.40	ppb		98
37) Toluene	6.281	91	1096425	9.86	ppb		100
46) Chlorobenzene	7.543	112	644950	10.46	ppb		100
72) 1,2,4-Trichlorobenzene	11.707	180	856	0.23	ppb	#	82
73) Hexachlorobutadiene	11.883	225	1791	0.22	ppb		92
74) Naphthalene	11.944	128	666	0.75	ppb	#	70
75) 1,2,3-Trichlorobenzene	12.188	180	1084	0.35	ppb	#	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501004.d
Acq On : 1 May 2014 8:54 am
Operator :
Sample : SBD0501W1
Misc : V3-125-17
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 01 09:16:44 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Compound List Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140429W.M
Title :
Last Update : Tue Apr 29 13:05:18 2014
Response Via : Initial Calibration

Total Cpnds : 75

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene	168	4.336	1.000	A	0	A	B
2		Dichlorodifluoromethane	85	1.209	0.279	L	1	A	B
3	P	Chloromethane	50	1.343	0.310	A	1	A	B
4	C	Vinyl Chloride	62	1.428	0.329	A	1	A	B
5		Bromomethane	96	1.690	0.390	A	1	A	B
6		Chloroethane	64	1.769	0.408	A	1	A	B
7		Trichlorofluoromethane	101	1.977	0.456	A	1	A	B
8	C	1,1-Dichloroethene	61	2.416	0.557	A	1	A	B
9		Acetone	43	2.483	0.573	A	1	A	B
10		Iodomethane	142	2.538	0.585	L	1	A	B
11		Carbon Disulfide \	76	2.592	0.598	A	1	A	B
12		Methylene Chloride	49	2.824	0.651	A	1	A	B
13		(trans) 1,2-Dichloroethene	61	3.056	0.705	A	1	A	B
14		Methyl t-Butyl Ether	73	3.068	0.708	A	3	A	B
15	P	1,1-Dichloroethane	63	3.409	0.786	A	1	A	B
16		Vinyl Acetate	43	3.464	0.799	L	1	A	B
17		2,2-Dichloropropane	77	3.897	0.899	A	1	A	B
18		(cis) 1,2-Dichloroethene	61	3.897	0.899	A	1	A	B
19		2-Butanone	43	3.928	0.906	A	1	A	B
20		Bromochloromethane	130	4.098	0.945	A	3	A	B
21	C	Chloroform	83	4.165	0.961	A	1	A	B
22		1,1,1-Trichloroethane	97	4.318	0.996	A	1	A	B
23	S	Dibromofluoromethane	111	4.299	0.991	A	1	A	B
24		Carbon Tetrachloride	117	4.458	1.028	A	1	A	B
25		1,1-Dichloropropene	75	4.452	1.027	A	1	A	B
26		Benzene	78	4.629	1.068	A	1	A	B
27		1,2-Dichloroethane	62	4.641	1.070	A	1	A	B
28	I	1,4-Difluorobenzene	114	4.952	1.000	A	0	A	B
29		Trichloroethene	130	5.171	1.044	A	1	A	B
30	C	1,2-Dichloropropane	63	5.360	1.082	A	1	A	B
31		Dibromomethane	174	5.464	1.103	A	2	A	B
32		Bromodichloromethane	83	5.598	1.130	A	1	A	B
33		2-Chloroethyl Vinyl Ether	63	5.860	1.183	L	1	A	B
34		(cis) 1,3-Dichloropropene	75	5.982	1.208	A	1	A	B
35		Methyl Isobutyl Ketone	43	6.122	1.236	A	3	A	B
36	S	Toluene-d8	98	6.220	1.256	A	1	A	B
37	C	Toluene	91	6.281	1.268	A	1	A	B
38	I	Chlorobenzene-d5	117	7.518	1.000	A	1	A	B
39		(trans) 1,3-Dichloropropene	75	6.470	0.861	A	1	A	B
40		1,1,2-Trichloroethane	97	6.634	0.882	A	1	A	B
41		Tetrachloroethene	166	6.769	0.900	A	2	A	B
42		1,3-Dichloropropane	76	6.787	0.903	A	1	A	B
43		2-Hexanone	43	6.866	0.913	A	3	A	B
44		Dibromochloromethane	129	6.988	0.930	A	2	A	B
45		1,2-Dibromoethane	107	7.092	0.943	A	1	A	B
46	P	Chlorobenzene	112	7.543	1.003	A	1	A	B
47		1,1,1,2-Tetrachloroethane	133	7.616	1.013	A	2	A	B
48	C	Ethylbenzene	91	7.646	1.017	A	1	A	B
49		m,p-Xylene	91	7.756	1.032	A	1	A	B
50		o-Xylene	91	8.128	1.081	A	1	A	B
51		Styrene	104	8.140	1.083	A	0	A	B
52	P	Bromoform	173	8.311	1.105	A	2	A	B
53		Isopropylbenzene	105	8.475	1.127	A	1	A	B
54	S	4-Bromofluorobenzene	95	8.616	1.146	A	2	A	B

55 I	1,4-Dichlorobenzene-d4	152	9.731	1.000	A	1	A	B
56	Bromobenzene	156	8.762	0.900	A	1	A	B
57 P	1,1,2,2-Tetrachloroethane	83	8.762	0.900	A	1	A	B
58	1,2,3-Trichloropropane	75	8.799	0.904	A	1	A	B
59	n-Propylbenzene	91	8.872	0.912	A	1	A	B
60	2-Chlorotoluene	126	8.951	0.920	A	1	A	B
61	4-Chlorotoluene	126	9.055	0.931	A	1	A	B
62	1,3,5-Trimethylbenzene	105	9.042	0.929	A	1	A	B
63	tert-Butylbenzene	119	9.353	0.961	A	1	A	B
64	1,2,4-Trimethylbenzene	105	9.402	0.966	A	1	A	B
65	sec-Butylbenzene	105	9.567	0.983	A	1	A	B
66	1,3-Dichlorobenzene	146	9.670	0.994	A	1	A	B
67	p-Isopropyltoluene	119	9.713	0.998	A	1	A	B
68	1,4-Dichlorobenzene	146	9.756	1.003	A	1	A	B
69	1,2-Dichlorobenzene	146	10.115	1.039	A	1	A	B
70	n-Butylbenzene	91	10.109	1.039	A	1	A	B
71	1,2-Dibromo-3-chloropropane	157	10.884	1.118	A	2	A	B
72	1,2,4-Trichlorobenzene	180	11.700	1.202	L	2	A	B
73	Hexachlorobutadiene	225	11.877	1.221	A	2	A	B
74	Naphthalene	128	11.944	1.227	L	1	A	B
75	1,2,3-Trichlorobenzene	180	12.182	1.252	L	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

M140429W.M Tue Apr 29 14:15:54 2014

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140429W.M
Title :
Last Update : Tue Apr 29 13:05:18 2014
Response Via : Initial Calibration

Calibration Files
.2 =M0429003.d 1 =M0429004.d 2 =M0429005.d 5 =M0429006.d 10 =M0429007.d 25 =M0429008.d
50 =M0429010.d .1 =M0716005.d

		Compound	.2	1	2	5	10	25	50	.1	Avg	%RSD
		ISTD										
1)	I	Pentafluorobenzene									0.490#	27.98
2)		Dichlorodifluo...	0.344	0.372	0.518	0.429	0.420	0.685	0.663		0.920	11.01
3)	P	Chloromethane	0.896	0.816	0.926	0.846	0.839	1.063	1.052		0.820#	10.68#
4)	C	Vinyl Chloride	0.743	0.733	0.835	0.782	0.771	0.959	0.915		0.434#	11.99
5)		Bromomethane	0.540	0.448	0.421	0.396	0.380	0.433	0.419		0.440#	6.83
6)		Chloroethane	0.486	0.410	0.422	0.425	0.418	0.476	0.442		0.939#	4.33
7)		Trichlorofluor...	0.960	0.914	0.903	0.910	0.904	1.005	0.973		0.990#	4.67#
8)	C	1,1-Dichloroet...	1.031	0.933	0.982	0.958	0.951	1.056	1.020		0.065#	14.62
9)		Acetone		0.075	0.078	0.060	0.059	0.059	0.057		0.655#	20.94
10)		Iodomethane		0.451	0.550	0.647	0.691	0.811	0.780		1.616#	6.84
11)		Carbon Disulfide	1.638	1.520	1.549	1.568	1.510	1.794	1.734		0.862#	4.48
12)		Methylene Chlo...		0.919	0.856	0.809	0.844	0.892	0.850		1.012#	3.92
13)		(trans) 1,2-Di...	1.054	0.980	0.981	1.004	0.965	1.062	1.042		0.635#	4.12
14)		Methyl t-Butyl...	0.618	0.615	0.621	0.628	0.618	0.677	0.669		1.144	3.56
15)	P	1,1-Dichloroet...	1.206	1.116	1.126	1.108	1.106	1.190	1.152		0.524#	20.77
16)		Vinyl Acetate		0.475	0.431	0.386	0.569	0.644	0.637		0.689#	7.40
17)		2,2-Dichloropr...	0.800	0.657	0.666	0.680	0.658	0.697	0.665		1.036#	4.03
18)		(cis) 1,2-Dich...	1.104	1.022	0.991	0.999	1.013	1.076	1.046		0.105#	6.65
19)		2-Butanone		0.118	0.105	0.100	0.103	0.104	0.098		0.240#	4.52
20)		Bromochloromet...	0.220	0.237	0.237	0.249	0.240	0.254	0.246		0.862#	2.39#
21)	C	Chloroform	0.838	0.850	0.847	0.871	0.854	0.899	0.872		0.831#	4.03
22)		1,1,1-Trichlor...	0.874	0.789	0.808	0.824	0.803	0.870	0.847		0.362#	1.52
23)	S	Dibromofluorom...	0.355	0.371	0.356	0.365	0.360	0.366	0.360		0.789#	2.65
24)		Carbon Tetrach...	0.789	0.778	0.766	0.796	0.767	0.823	0.806		0.726#	4.61
25)		1,1-Dichloropr...	0.783	0.708	0.681	0.721	0.710	0.754	0.728		1.986#	2.32
26)		Benzene	2.041	1.977	1.928	1.964	1.943	2.049	1.997		0.498#	2.94
27)		1,2-Dichloroet...	0.479	0.511	0.481	0.496	0.498	0.519	0.504			
		ISTD										
28)	I	1,4-Difluorobenzene									0.442#	3.82
29)		Trichloroethene	0.472	0.435	0.426	0.455	0.423	0.444	0.438		0.380#	4.26#
30)	C	1,2-Dichloropr...	0.360	0.361	0.374	0.382	0.384	0.401	0.398		0.137#	4.77
31)		Dibromomethane	0.130	0.133	0.130	0.142	0.137	0.148	0.140		0.361#	6.37
32)		Bromodichlorom...	0.325	0.338	0.359	0.373	0.363	0.388	0.382		0.003#	32.30
33)		2-Chloroethyl ...			0.002	0.003	0.003	0.004	0.004		0.379#	8.55
34)		(cis) 1,3-Dich...	0.325	0.357	0.363	0.389	0.390	0.416	0.410		0.134#	6.79
35)		Methyl Isobuty...	0.127	0.131	0.128	0.123	0.137	0.148	0.143		1.094#	0.77
36)	S	Toluene-d8	1.092	1.097	1.083	1.099	1.083	1.102	1.104		1.516#	3.51#
37)	C	Toluene	1.583	1.451	1.480	1.497	1.473	1.576	1.550			

Response Factor Report Morris

Method Path : C:\msdchem\1\methods\
Method File : M140429W.M
Title :

			ISTD								
38)	I	Chlorobenzene-d5								0.333#	6.45
39)		(trans) 1,3-Di...	0.312	0.313	0.307	0.338	0.348	0.356	0.354	0.206#	2.44
40)		1,1,2-Trichlor...	0.202	0.197	0.208	0.209	0.208	0.211	0.209	0.592#	4.92
41)		Tetrachloroethene	0.653	0.570	0.566	0.595	0.582	0.595	0.583	0.356#	2.50
42)		1,3-Dichloropr...	0.354	0.337	0.357	0.360	0.357	0.366	0.360	0.114#	8.28
43)		2-Hexanone	0.095	0.110	0.114	0.115	0.118	0.124	0.119	0.280#	5.51
44)		Dibromochlorom...	0.275	0.255	0.270	0.280	0.286	0.298	0.299	0.184#	4.13
45)		1,2-Dibromoethane	0.172	0.177	0.183	0.190	0.187	0.193	0.189	1.113	1.37
46)	P	Chlorobenzene	1.109	1.088	1.105	1.122	1.106	1.131	1.128	0.364#	4.97
47)		1,1,1,2-Tetrac...	0.349	0.336	0.356	0.372	0.370	0.383	0.384	2.126#	4.10#
48)	C	Ethylbenzene	2.133	1.989	2.050	2.125	2.127	2.238	2.219	1.582#	4.29
49)		m,p-Xylene	1.562	1.471	1.524	1.601	1.607	1.655	1.655	1.449#	5.08
50)		o-Xylene	1.406	1.322	1.413	1.469	1.478	1.527	1.525	1.115#	7.92
51)		Styrene	0.978	1.010	1.112	1.150	1.174	1.202	1.182	0.149	8.44
52)	P	Bromoform	0.129	0.136	0.148	0.149	0.155	0.161	0.163	1.839#	5.78
53)		Isopropylbenzene	1.687	1.739	1.782	1.853	1.897	1.968	1.944	0.430#	2.12
54)	S	4-Bromofluorob...	0.413	0.429	0.441	0.434	0.430	0.436	0.424		
			ISTD								
55)	I	1,4-Dichlorobenzen...								0.949#	3.89
56)		Bromobenzene	1.026	0.932	0.911	0.934	0.933	0.947	0.958	0.399	4.07
57)	P	1,1,2,2-Tetrac...	0.382	0.391	0.387	0.388	0.410	0.420	0.418	0.321#	4.47
58)		1,2,3-Trichlor...	0.343	0.339	0.308	0.305	0.321	0.316	0.319	5.027#	5.36
59)		n-Propylbenzene	5.443	4.757	4.678	4.924	4.997	5.194	5.195	1.015#	2.42
60)		2-Chlorotoluene	0.998	0.986	1.010	0.997	1.022	1.048	1.046	1.008#	2.04
61)		4-Chlorotoluene	1.044	1.002	0.985	0.995	0.992	1.021	1.017	3.759#	3.97
62)		1,3,5-Trimethy...	3.798	3.557	3.571	3.744	3.794	3.920	3.927	2.981#	3.95
63)		tert-Butylbenzene	2.974	2.880	2.824	2.921	3.011	3.106	3.150	3.490#	4.86
64)		1,2,4-Trimethy...	3.405	3.221	3.352	3.534	3.580	3.667	3.671	4.208#	4.13
65)		sec-Butylbenzene	4.117	3.959	4.085	4.165	4.304	4.396	4.430	1.651#	1.97
66)		1,3-Dichlorobe...	1.621	1.644	1.621	1.624	1.667	1.682	1.701	3.402#	6.10
67)		p-Isopropyltol...	3.277	3.140	3.181	3.418	3.522	3.632	3.643	1.714#	2.98
68)		1,4-Dichlorobe...	1.768	1.653	1.639	1.700	1.734	1.748	1.756	1.213#	4.94
69)		1,2-Dichlorobe...	1.146	1.136	1.189	1.209	1.271	1.253	1.288	3.009#	5.85
70)		n-Butylbenzene	3.059	2.824	2.742	2.965	3.078	3.178	3.214	0.062#	6.07
71)		1,2-Dibromo-3-...		0.058	0.061	0.059	0.064	0.065	0.068	0.415#	15.45
72)		1,2,4-Trichlor...	0.326	0.370	0.372	0.405	0.457	0.470	0.504	0.384#	8.26
73)		Hexachlorobuta...	0.390	0.336	0.350	0.377	0.407	0.415	0.415	0.465#	24.48
74)		Naphthalene		0.323	0.365	0.419	0.525	0.543	0.616	0.244#	20.41
75)		1,2,3-Trichlor...	0.173	0.208	0.208	0.242	0.283	0.285	0.307		

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429003.d
Acq On : 29 Apr 2014 8:22 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 29 08:35:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	550254	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	768647	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	575048	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	223845	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	195561	7.80	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 78.00%				
36) Toluene-d8	6.220	98	839631	9.27	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 92.70%				
54) 4-Bromofluorobenzene	8.616	95	237535	9.31	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 93.10%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	3783	0.09	ppb		93
3) Chloromethane	1.343	50	9858	0.15	ppb		96
4) Vinyl Chloride	1.428	62	8172	0.15	ppb		94
5) Bromomethane	1.684	96	5948	0.23	ppb		90
6) Chloroethane	1.770	64	5352	0.19	ppb		93
7) Trichlorofluoromethane	1.977	101	10566	0.18	ppb		94
8) 1,1-Dichloroethene	2.416	61	11345	0.18	ppb		100
9) ~~Acetone~~	2.483	43	1501	Below Cal		#	82
10) ~~Iodomethane~~	2.538	142	3216	0.46	ppb		95
11) Carbon Disulfide	2.593	76	18022	0.18	ppb		96
12) ~~Methylene~~ Chloride	2.824	49	14552	0.27	ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	11604	0.18	ppb		96
14) Methyl t-Butyl Ether	3.068	73	6805	0.17	ppb		98
15) 1,1-Dichloroethane	3.409	63	13275	0.18	ppb		99
16) ~~Vinyl Acetate~~	3.458	43	7001	0.23	ppb	#	93
17) 2,2-Dichloropropane	3.891	77	8808	0.19	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	12148	0.18	ppb		97
19) ~~2-Butanone~~	3.922	43	1405	0.21	ppb	#	53
20) Bromochloromethane	4.098	130	2423	0.17	ppb		94
21) Chloroform	4.165	83	9222	0.16	ppb		98
22) 1,1,1-Trichloroethane	4.312	97	9618	0.17	ppb	#	1
24) Carbon Tetrachloride	4.452	117	8682	0.17	ppb		94
25) 1,1-Dichloropropene	4.452	75	8622	0.18	ppb		100
26) Benzene	4.629	78	22458	0.18	ppb		98
27) 1,2-Dichloroethane	4.641	62	5275	0.15	ppb		97
29) Trichloroethene	5.171	130	7253	0.21	ppb		95
30) 1,2-Dichloropropane	5.360	63	5527	0.18	ppb		92
31) Dibromomethane	5.464	174	2001	0.20	ppb		92
32) Bromodichloromethane	5.598	83	4994	0.16	ppb		99
34) (cis) 1,3-Dichloropropene	5.982	75	4996	0.16	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	1952	0.17	ppb	#	83
37) Toluene	6.275	91	24335	0.19	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	3589	0.18	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	2328	0.19	ppb		97
41) Tetrachloroethene	6.769	166	7509	0.24	ppb		97
42) 1,3-Dichloropropane	6.787	76	4070	0.19	ppb		90
43) 2-Hexanone	6.866	43	1091	0.15	ppb	#	75
44) Dibromochloromethane	6.988	129	3159	0.20	ppb		97
45) 1,2-Dibromoethane	7.092	107	1974	0.19	ppb		94

SD 4/29/14

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429003.d
Acq On : 29 Apr 2014 8:22 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 29 08:35:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) Chlorobenzene	7.543	112	12758	0.20	ppb		97
47) 1,1,1,2-Tetrachloroethane	7.622	133	4013	0.19	ppb		97
48) Ethylbenzene	7.646	91	24532	0.20	ppb		100
49) m,p-Xylene	7.756	91	35923	0.38	ppb		99
50) o-Xylene	8.128	91	16172	0.19	ppb		99
51) Styrene	8.140	104	11244	0.18	ppb		100
52) Bromoform	8.311	173	1482	0.19	ppb		93
53) Isopropylbenzene	8.476	105	19403	0.18	ppb		100
56) Bromobenzene	8.762	156	4592	0.23	ppb		97
57) 1,1,2,2-Tetrachloroethane	8.762	83	1708	0.17	ppb		96
58) 1,2,3-Trichloropropane	8.799	75	1535	0.20	ppb	#	100
59) n-Propylbenzene	8.872	91	24366	0.20	ppb		95
60) 2-Chlorotoluene	8.951	126	4468	0.19	ppb		98
61) 4-Chlorotoluene	9.055	126	4673	0.21	ppb		98
62) 1,3,5-Trimethylbenzene	9.043	105	17004	0.20	ppb		97
63) tert-Butylbenzene	9.353	119	13315	0.20	ppb		96
64) 1,2,4-Trimethylbenzene	9.402	105	15244	0.19	ppb		98
65) sec-Butylbenzene	9.567	105	18431	0.19	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	7255	0.21	ppb		97
67) p-Isopropyltoluene	9.713	119	14673	0.19	ppb		96
68) 1,4-Dichlorobenzene	9.756	146	7914	0.22	ppb		88
69) 1,2-Dichlorobenzene	10.115	146	5130	0.20	ppb		96
70) n-Butylbenzene	10.109	91	13696	0.20	ppb		97
72) 1,2,4-Trichlorobenzene	11.707	180	1460	0.21	ppb		98
73) Hexachlorobutadiene	11.877	225	1745	0.27	ppb		93
74) Naphthalene	11.944	128	1123	0.13	ppb	#	70
75) 1,2,3-Trichlorobenzene	12.188	180	773	0.30	ppb	#	77

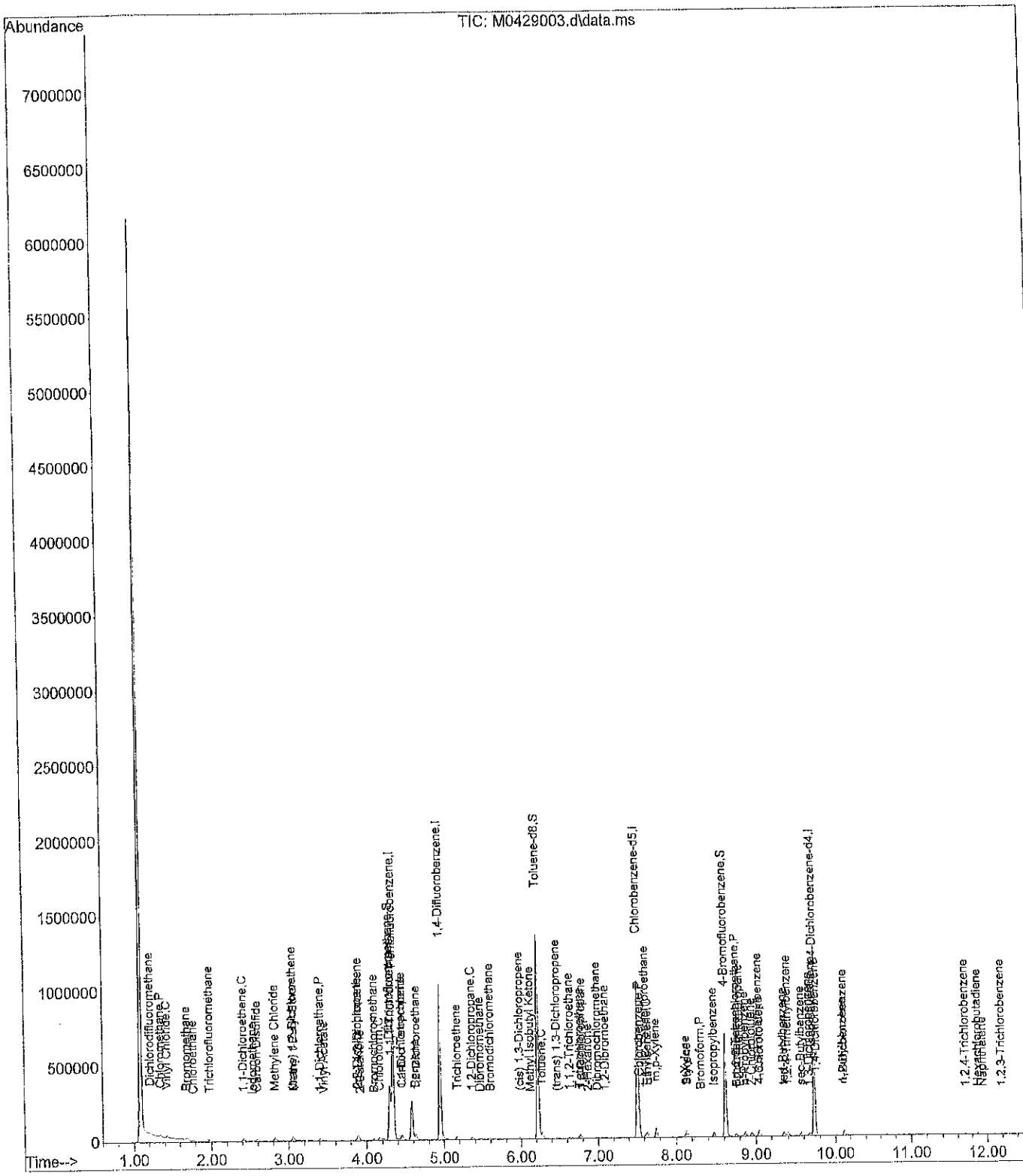
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SD 4-29-14

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429003.d
Acq On : 29 Apr 2014 8:22 am
Operator :
Sample : 0.20 PPB ICAL
Misc : V3-124-10
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 29 08:35:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429004.d
Acq On : 29 Apr 2014 8:45 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 29 08:58:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	535221	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	768552	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	587469	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	241416	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	198339	8.14	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 81.40%				
36) Toluene-d8	6.220	98	842821	9.31	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.10%				
54) 4-Bromofluorobenzene	8.616	95	251795	9.66	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 96.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	19889	0.48	ppb		100
3) Chloromethane	1.343	50	43671	0.69	ppb		99
4) Vinyl Chloride	1.428	62	39242	0.73	ppb		100
5) Bromomethane	1.684	96	23957	0.94	ppb		95
6) Chloroethane	1.769	64	21931	0.78	ppb		97
7) Trichlorofluoromethane	1.977	101	48945	0.85	ppb		100
8) 1,1-Dichloroethene	2.416	61	49927	0.81	ppb		99
9) Acetone	2.483	43	4032	0.53	ppb		92
10) Iodomethane	2.538	142	24115	0.95	ppb		92
11) Carbon Disulfide	2.592	76	81329	0.83	ppb		100
12) Methylene Chloride	2.824	49	49199	0.93	ppb		98
13) (trans) 1,2-Dichloroet...	3.056	61	52456	0.85	ppb		100
14) Methyl t-Butyl Ether	3.068	73	32923	0.84	ppb		96
15) 1,1-Dichloroethane	3.409	63	59740	0.85	ppb		98
16) Vinyl Acetate	3.464	43	25430	0.85	ppb		99
17) 2,2-Dichloropropane	3.891	77	35190	0.78	ppb		98
18) (cis) 1,2-Dichloroethene	3.897	61	54683	0.84	ppb		100
19) 2-Butanone	3.928	43	6302	0.97	ppb	#	88
20) Bromochloromethane	4.098	130	12704	0.93	ppb		91
21) Chloroform	4.165	83	45499	0.82	ppb		99
22) 1,1,1-Trichloroethane	4.318	97	42234	0.79	ppb	#	1
24) Carbon Tetrachloride	4.452	117	41614	0.83	ppb		96
25) 1,1-Dichloropropene	4.452	75	37882	0.81	ppb		100
26) Benzene	4.629	78	105812	0.86	ppb		97
27) 1,2-Dichloroethane	4.641	62	27344	0.81	ppb		98
29) Trichloroethene	5.171	130	33467	0.99	ppb		98
30) 1,2-Dichloropropane	5.360	63	27759	0.90	ppb		99
31) Dibromomethane	5.464	174	10231	1.03	ppb		98
32) Bromodichloromethane	5.598	83	25947	0.84	ppb		99
34) (cis) 1,3-Dichloropropene	5.982	75	27432	0.87	ppb		98
35) Methyl Isobutyl Ketone	6.122	43	10065	0.89	ppb	#	97
37) Toluene	6.281	91	111532	0.89	ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	18387	0.89	ppb		96
40) 1,1,2-Trichloroethane	6.634	97	11554	0.93	ppb		95
41) Tetrachloroethene	6.768	166	33461	1.04	ppb		98
42) 1,3-Dichloropropane	6.781	76	19825	0.92	ppb		97
43) 2-Hexanone	6.866	43	6441	0.87	ppb	#	98
44) Dibromochloromethane	6.988	129	15000	0.93	ppb		99
45) 1,2-Dibromoethane	7.092	107	10397	0.96	ppb		97

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429004.d
Acq On : 29 Apr 2014 8:45 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 29 08:58:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

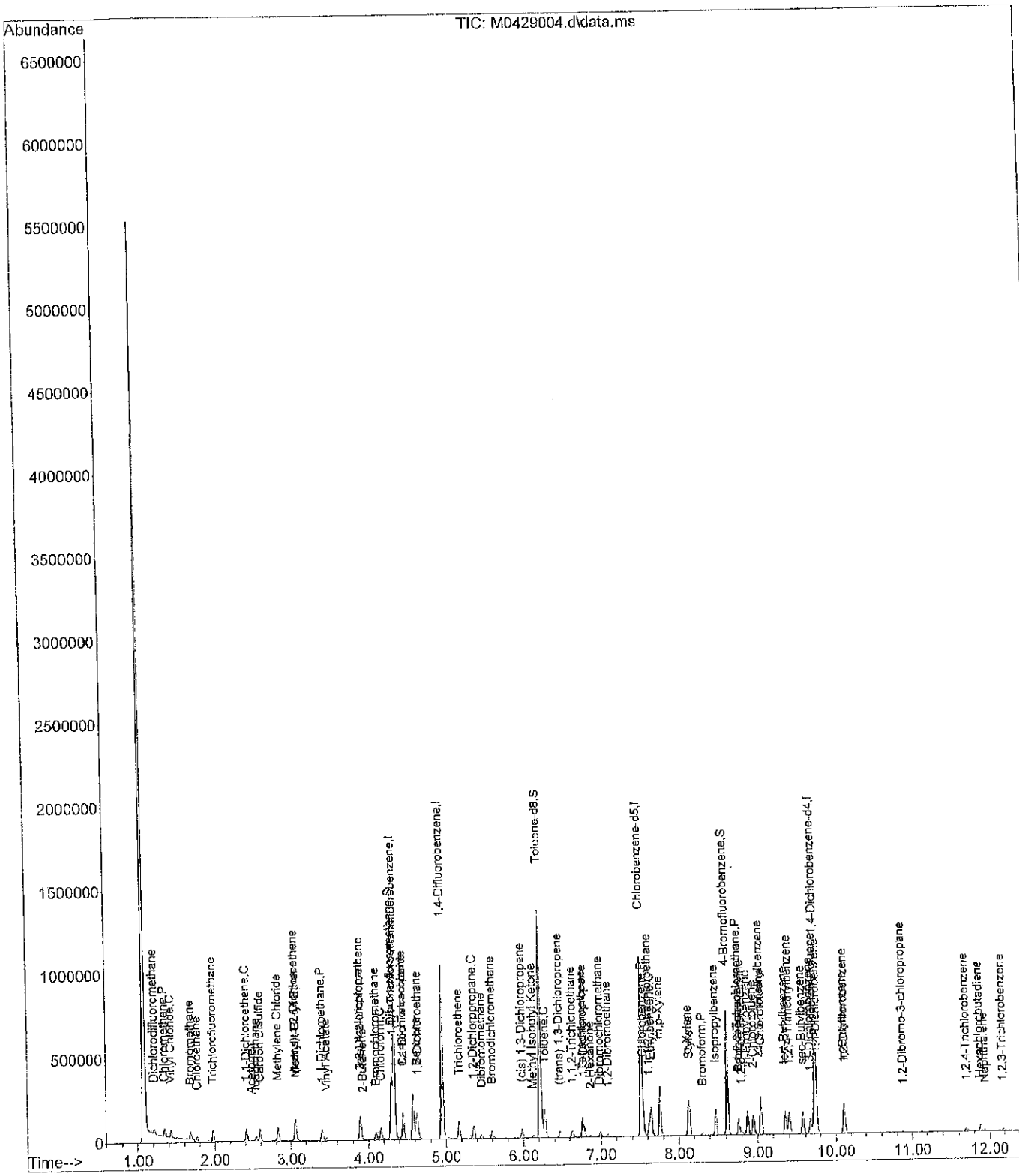
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) Chlorobenzene	7.543	112	63893	0.98	ppb		97
47) 1,1,1,2-Tetrachloroethane	7.616	133	19717	0.94	ppb		92
48) Ethylbenzene	7.646	91	116874	0.91	ppb		97
49) m,p-Xylene	7.756	91	172790	1.80	ppb		98
50) o-Xylene	8.128	91	77639	0.88	ppb		97
51) Styrene	8.140	104	59307	0.91	ppb		100
52) Bromoform	8.311	173	8011	0.98	ppb		96
53) Isopropylbenzene	8.475	105	102133	0.93	ppb		98
56) Bromobenzene	8.762	156	22496	1.03	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	9431	0.89	ppb		100
58) 1,2,3-Trichloropropane	8.799	75	8173	0.98	ppb	#	100
59) n-Propylbenzene	8.872	91	114835	0.89	ppb		99
60) 2-Chlorotoluene	8.951	126	23805	0.96	ppb		99
61) 4-Chlorotoluene	9.055	126	24186	0.99	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	85862	0.94	ppb		96
63) tert-Butylbenzene	9.353	119	69527	0.97	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	77759	0.92	ppb		98
65) sec-Butylbenzene	9.567	105	95576	0.92	ppb		97
66) 1,3-Dichlorobenzene	9.670	146	39694	1.05	ppb		98
67) p-Isopropyltoluene	9.713	119	75806	0.93	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	39916	1.01	ppb		95
69) 1,2-Dichlorobenzene	10.121	146	27428	1.00	ppb		97
70) n-Butylbenzene	10.109	91	68168	0.91	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	1393	1.15	ppb	#	74
72) 1,2,4-Trichlorobenzene	11.707	180	8921	1.18	ppb		95
73) Hexachlorobutadiene	11.883	225	8118	1.15	ppb		97
74) Naphthalene	11.944	128	7801	0.87	ppb		95
75) 1,2,3-Trichlorobenzene	12.182	180	5017	1.14	ppb		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429004.d
Acq On : 29 Apr 2014 8:45 am
Operator :
Sample : 1.0 PPB ICAL
Misc : V3-124-9
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 29 08:58:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429005.d
Acq On : 29 Apr 2014 9:09 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 29 09:22:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	549077	10.00 ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	779437	10.00 ppb		0.00
38) Chlorobenzene-d5	7.518	117	593647	10.00 ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	253280	10.00 ppb		0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.300	111	195744	7.83 ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 78.30%			
36) Toluene-d8	6.220	98	844220	9.19 ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 91.90%			
54) 4-Bromofluorobenzene	8.622	95	261838	9.94 ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 99.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	56901	1.35 ppb		99
3) Chloromethane	1.343	50	101673	1.56 ppb		99
4) Vinyl Chloride	1.428	62	91734	1.67 ppb		99
5) Bromomethane	1.684	96	46257	1.77 ppb		98
6) Chloroethane	1.770	64	46309	1.61 ppb		98
7) Trichlorofluoromethane	1.977	101	99205	1.68 ppb		99
8) 1,1-Dichloroethene	2.416	61	107849	1.71 ppb		100
9) Acetone	2.483	43	8591	1.76 ppb		97
10) Iodomethane	2.538	142	60449	1.76 ppb		94
11) Carbon Disulfide	2.593	76	170067	1.69 ppb		99
12) Methylene Chloride	2.824	49	94046	1.73 ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	107734	1.70 ppb		98
14) Methyl t-Butyl Ether	3.068	73	68215	1.70 ppb		98
15) 1,1-Dichloroethane	3.409	63	123613	1.71 ppb		99
16) Vinyl Acetate	3.464	43	47319	1.55 ppb		100
17) 2,2-Dichloropropane	3.891	77	73176	1.58 ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	108850	1.63 ppb		99
19) 2-Butanone	3.928	43	11526	1.73 ppb		94
20) Bromochloromethane	4.098	130	26003	1.86 ppb		95
21) Chloroform	4.165	83	92983	1.62 ppb		99
22) 1,1,1-Trichloroethane	4.312	97	88752	1.61 ppb	#	1
24) Carbon Tetrachloride	4.452	117	84138	1.63 ppb		95
25) 1,1-Dichloropropene	4.452	75	74741	1.56 ppb		99
26) Benzene	4.629	78	211774	1.68 ppb		100
27) 1,2-Dichloroethane	4.641	62	52830	1.52 ppb		98
29) Trichloroethene	5.171	130	66421	1.93 ppb		97
30) 1,2-Dichloropropane	5.360	63	58360	1.86 ppb		99
31) Dibromomethane	5.464	174	20273	2.01 ppb		95
32) Bromodichloromethane	5.598	83	55958	1.79 ppb		96
33) 2-Chloroethyl Vinyl Ether	5.866	63	269	0.16 ppb	#	58
34) (cis) 1,3-Dichloropropene	5.982	75	56512	1.76 ppb		98
35) Methyl Isobutyl Ketone	6.122	43	20009	1.74 ppb	#	97
37) Toluene	6.275	91	230734	1.82 ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	36451	1.74 ppb		99
40) 1,1,2-Trichloroethane	6.634	97	24679	1.96 ppb		96
41) Tetrachloroethene	6.769	166	67215	2.08 ppb		100
42) 1,3-Dichloropropane	6.787	76	42396	1.94 ppb		99
43) 2-Hexanone	6.866	43	13539	1.81 ppb	#	99
44) Dibromochloromethane	6.988	129	32074	1.98 ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429005.d
Acq On : 29 Apr 2014 9:09 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 29 09:22:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

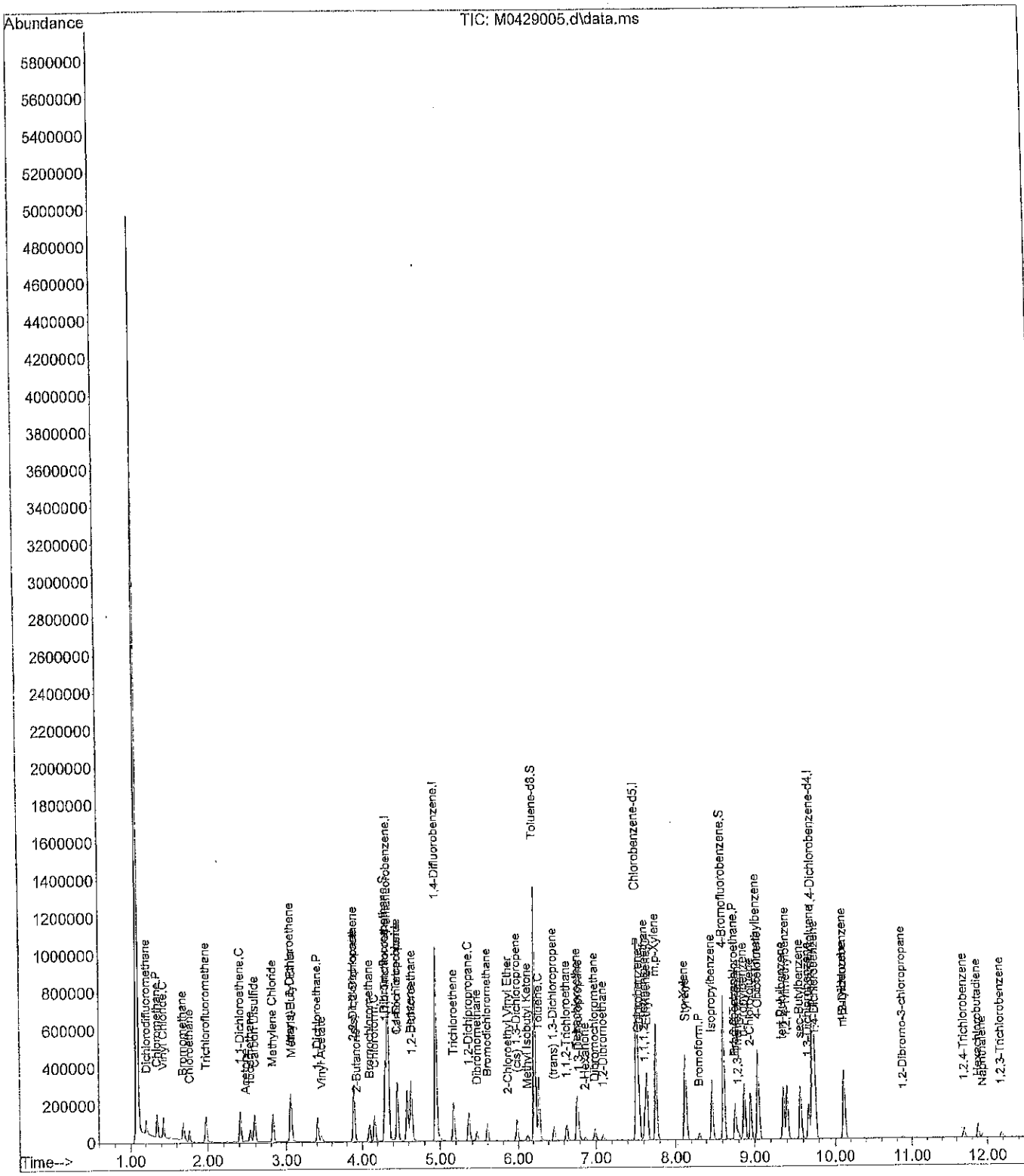
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	21685	1.97	ppb		99
46) Chlorobenzene	7.543	112	131148	1.98	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	42291	1.99	ppb		97
48) Ethylbenzene	7.646	91	243439	1.88	ppb		97
49) m,p-Xylene	7.756	91	362004	3.73	ppb		98
50) o-Xylene	8.128	91	167707	1.89	ppb		98
51) Styrene	8.140	104	132017	2.00	ppb		100
52) Bromoform	8.311	173	17626	2.14	ppb		98
53) Isopropylbenzene	8.476	105	211554	1.91	ppb		97
56) Bromobenzene	8.762	156	46158	2.01	ppb		95
57) 1,1,2,2-Tetrachloroethane	8.762	83	19587	1.76	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	15612	1.78	ppb	#	100
59) n-Propylbenzene	8.872	91	236953	1.75	ppb		97
60) 2-Chlorotoluene	8.951	126	51138	1.96	ppb		99
61) 4-Chlorotoluene	9.055	126	49917	1.95	ppb		97
62) 1,3,5-Trimethylbenzene	9.042	105	180885	1.89	ppb		99
63) tert-Butylbenzene	9.353	119	143067	1.90	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	169805	1.91	ppb		98
65) sec-Butylbenzene	9.567	105	206913	1.90	ppb		96
66) 1,3-Dichlorobenzene	9.670	146	82120	2.07	ppb		99
67) p-Isopropyltoluene	9.713	119	161149	1.88	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	83013	2.01	ppb		95
69) 1,2-Dichlorobenzene	10.115	146	60237	2.10	ppb		100
70) n-Butylbenzene	10.109	91	138894	1.78	ppb		95
71) 1,2-Dibromo-3-chloropr...	10.884	157	3092	2.44	ppb	#	93
72) 1,2,4-Trichlorobenzene	11.707	180	18839	2.38	ppb		98
73) Hexachlorobutadiene	11.883	225	17709	2.39	ppb		97
74) Naphthalene	11.944	128	18467	1.96	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	10556	2.15	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429005.d
Acq On : 29 Apr 2014 9:09 am
Operator :
Sample : 2.0 PPB ICAL
Misc : V3-124-8
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 29 09:22:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429006.d
Acq On : 29 Apr 2014 9:32 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 29 09:45:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	549547	10.00 ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	782310	10.00 ppb		0.00
38) Chlorobenzene-d5	7.518	117	596625	10.00 ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	258777	10.00 ppb		0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	200654	8.02 ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.20%			
36) Toluene-d8	6.220	98	859958	9.33 ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.30%			
54) 4-Bromofluorobenzene	8.616	95	259066	9.78 ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.80%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	117982	2.80 ppb		99
3) Chloromethane	1.343	50	232357	3.57 ppb		99
4) Vinyl Chloride	1.428	62	214844	3.91 ppb		99
5) Bromomethane	1.684	96	108711	4.17 ppb		98
6) Chloroethane	1.769	64	116809	4.06 ppb		97
7) Trichlorofluoromethane	1.977	101	250137	4.23 ppb		99
8) 1,1-Dichloroethene	2.416	61	263311	4.17 ppb		100
9) Acetone	2.483	43	16402	3.91 ppb		93
10) Iodomethane	2.538	142	177835	4.41 ppb		95
11) Carbon Disulfide	2.592	76	430902	4.29 ppb		99
12) Methylene Chloride	2.824	49	222396	4.09 ppb		99
13) (trans) 1,2-Dichloroet...	3.056	61	275905	4.34 ppb		100
14) Methyl t-Butyl Ether	3.068	73	172616	4.31 ppb		96
15) 1,1-Dichloroethane	3.409	63	304525	4.20 ppb		100
16) Vinyl Acetate	3.464	43	106199	3.47 ppb		97
17) 2,2-Dichloropropane	3.891	77	186764	4.03 ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	274533	4.10 ppb		98
19) 2-Butanone	3.928	43	27465	4.13 ppb		98
20) Bromochloromethane	4.098	130	68460	4.88 ppb		86
21) Chloroform	4.165	83	239353	4.18 ppb		99
22) 1,1,1-Trichloroethane	4.318	97	226341	4.10 ppb	#	39
24) Carbon Tetrachloride	4.458	117	218685	4.24 ppb		97
25) 1,1-Dichloropropene	4.452	75	198115	4.14 ppb		100
26) Benzene	4.629	78	539578	4.29 ppb		99
27) 1,2-Dichloroethane	4.641	62	136401	3.91 ppb		99
29) Trichloroethene	5.171	130	177853	5.15 ppb		99
30) 1,2-Dichloropropane	5.360	63	149390	4.74 ppb		99
31) Dibromomethane	5.464	174	55568	5.50 ppb		99
32) Bromodichloromethane	5.598	83	145998	4.66 ppb		98
33) 2-Chloroethyl Vinyl Ether	5.860	63	999	0.59 ppb	#	58
34) (cis) 1,3-Dichloropropene	5.982	75	152267	4.73 ppb		99
35) Methyl Isobutyl Ketone	6.122	43	48159	4.18 ppb		95
37) Toluene	6.275	91	585378	4.60 ppb		99
39) (trans) 1,3-Dichloropr...	6.470	75	100970	4.81 ppb		99
40) 1,1,2-Trichloroethane	6.634	97	62470	4.95 ppb		100
41) Tetrachloroethene	6.768	166	177638	5.46 ppb		99
42) 1,3-Dichloropropane	6.787	76	107420	4.89 ppb		97
43) 2-Hexanone	6.866	43	34435	4.57 ppb		99
44) Dibromochloromethane	6.988	129	83460	5.12 ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429006.d
Acq On : 29 Apr 2014 9:32 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 29 09:45:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

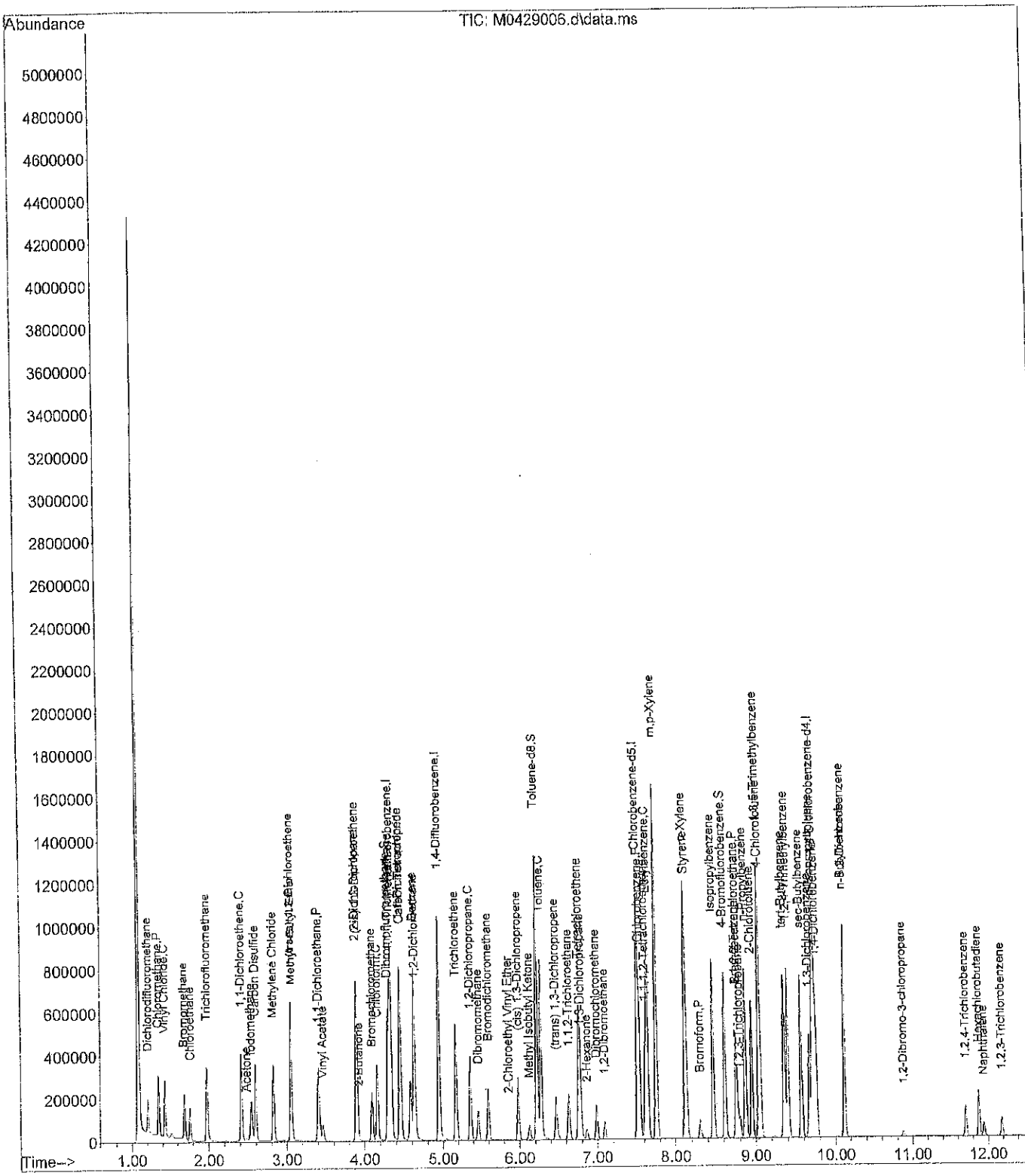
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	56729	5.14	ppb		99
46) Chlorobenzene	7.543	112	334765	5.04	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	111117	5.19	ppb		98
48) Ethylbenzene	7.646	91	633765	4.86	ppb		97
49) m,p-Xylene	7.756	91	955047	9.79	ppb		98
50) o-Xylene	8.128	91	438143	4.91	ppb		98
51) Styrene	8.140	104	343191	5.16	ppb		100
52) Bromoform	8.311	173	44563	5.38	ppb		99
53) Isopropylbenzene	8.475	105	552749	4.97	ppb		98
56) Bromobenzene	8.762	156	120845	5.16	ppb		96
57) 1,1,2,2-Tetrachloroethane	8.762	83	50208	4.43	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	39472	4.41	ppb	#	100
59) n-Propylbenzene	8.872	91	637074	4.61	ppb		99
60) 2-Chlorotoluene	8.951	126	129033	4.85	ppb		99
61) 4-Chlorotoluene	9.055	126	128776	4.93	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	484446	4.96	ppb		97
63) tert-Butylbenzene	9.353	119	377936	4.91	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	457208	5.05	ppb		98
65) sec-Butylbenzene	9.567	105	538948	4.85	ppb		97
66) 1,3-Dichlorobenzene	9.670	146	210109	5.19	ppb		99
67) p-Isopropyltoluene	9.713	119	442294	5.06	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	219949	5.20	ppb		98
69) 1,2-Dichlorobenzene	10.115	146	156466	5.33	ppb		98
70) n-Butylbenzene	10.109	91	383573	4.80	ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	7649	5.91	ppb		94
72) 1,2,4-Trichlorobenzene	11.707	180	52456	6.48	ppb		96
73) Hexachlorobutadiene	11.877	225	48786	6.43	ppb		99
74) Naphthalene	11.944	128	54241	5.63	ppb		100
75) 1,2,3-Trichlorobenzene	12.182	180	31267	5.99	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429006.d
Acq On : 29 Apr 2014 9:32 am
Operator :
Sample : 5.0 PPB ICAL
Misc : V3-124-7
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 29 09:45:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429007.d
Acq On : 29 Apr 2014 9:56 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 29 10:08:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene	4.336	168	549353	10.00 ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	782114	10.00 ppb	0.00
38) Chlorobenzene-d5	7.518	117	595948	10.00 ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	255139	10.00 ppb	0.00
System Monitoring Compounds					
23) Dibromofluoromethane	4.299	111	197525	7.90 ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 79.00%		
36) Toluene-d8	6.220	98	847315	9.19 ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 91.90%		
54) 4-Bromofluorobenzene	8.616	95	255983	9.68 ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 96.80%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.209	85	230634	5.47 ppb	99
3) Chloromethane	1.343	50	460860	7.07 ppb	99
4) Vinyl Chloride	1.428	62	423675	7.72 ppb	99
5) Bromomethane	1.690	96	208994	8.01 ppb	99
6) Chloroethane	1.769	64	229356	7.97 ppb	99
7) Trichlorofluoromethane	1.977	101	496361	8.40 ppb	99
8) 1,1-Dichloroethene	2.416	61	522418	8.27 ppb	99
9) Acetone	2.483	43	32179	8.26 ppb	93
10) Iodomethane	2.538	142	379526	8.98 ppb	92
11) Carbon Disulfide	2.592	76	829606	8.26 ppb	100
12) Methylene Chloride	2.824	49	463423	8.53 ppb	100
13) (trans) 1,2-Dichloroet...	3.056	61	529853	8.33 ppb	99
14) Methyl t-Butyl Ether	3.068	73	339379	8.47 ppb	97
15) 1,1-Dichloroethane	3.409	63	607358	8.38 ppb	100
16) Vinyl Acetate	3.464	43	312513	10.20 ppb	99
17) 2,2-Dichloropropane	3.897	77	361318	7.81 ppb	99
18) (cis) 1,2-Dichloroethene	3.897	61	556258	8.31 ppb	99
19) 2-Butanone	3.928	43	56558	8.51 ppb	97
20) Bromochloromethane	4.098	130	131596	9.38 ppb	93
21) Chloroform	4.165	83	469225	8.19 ppb	99
22) 1,1,1-Trichloroethane	4.318	97	440917	7.98 ppb	94
24) Carbon Tetrachloride	4.458	117	421413	8.17 ppb	98
25) 1,1-Dichloropropene	4.452	75	390205	8.15 ppb	100
26) Benzene	4.629	78	1067527	8.48 ppb	99
27) 1,2-Dichloroethane	4.641	62	273780	7.86 ppb	99
29) Trichloroethene	5.171	130	331219	9.60 ppb	100
30) 1,2-Dichloropropane	5.360	63	300097	9.53 ppb	100
31) Dibromomethane	5.464	174	107509	10.63 ppb	99
32) Bromodichloromethane	5.598	83	283751	9.06 ppb	98
33) 2-Chloroethyl Vinyl Ether	5.860	63	2402	1.43 ppb #	58
34) (cis) 1,3-Dichloropropene	5.982	75	305057	9.48 ppb	100
35) Methyl Isobutyl Ketone	6.122	43	106806	9.28 ppb	99
37) Toluene	6.281	91	1151921	9.05 ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	207578	9.89 ppb	100
40) 1,1,2-Trichloroethane	6.634	97	123810	9.81 ppb	99
41) Tetrachloroethene	6.769	166	346674	10.66 ppb	100
42) 1,3-Dichloropropane	6.787	76	212827	9.71 ppb	99
43) 2-Hexanone	6.866	43	70040	9.31 ppb	98
44) Dibromochloromethane	6.988	129	170523	10.46 ppb	99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429007.d
Acq On : 29 Apr 2014 9:56 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 29 10:08:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

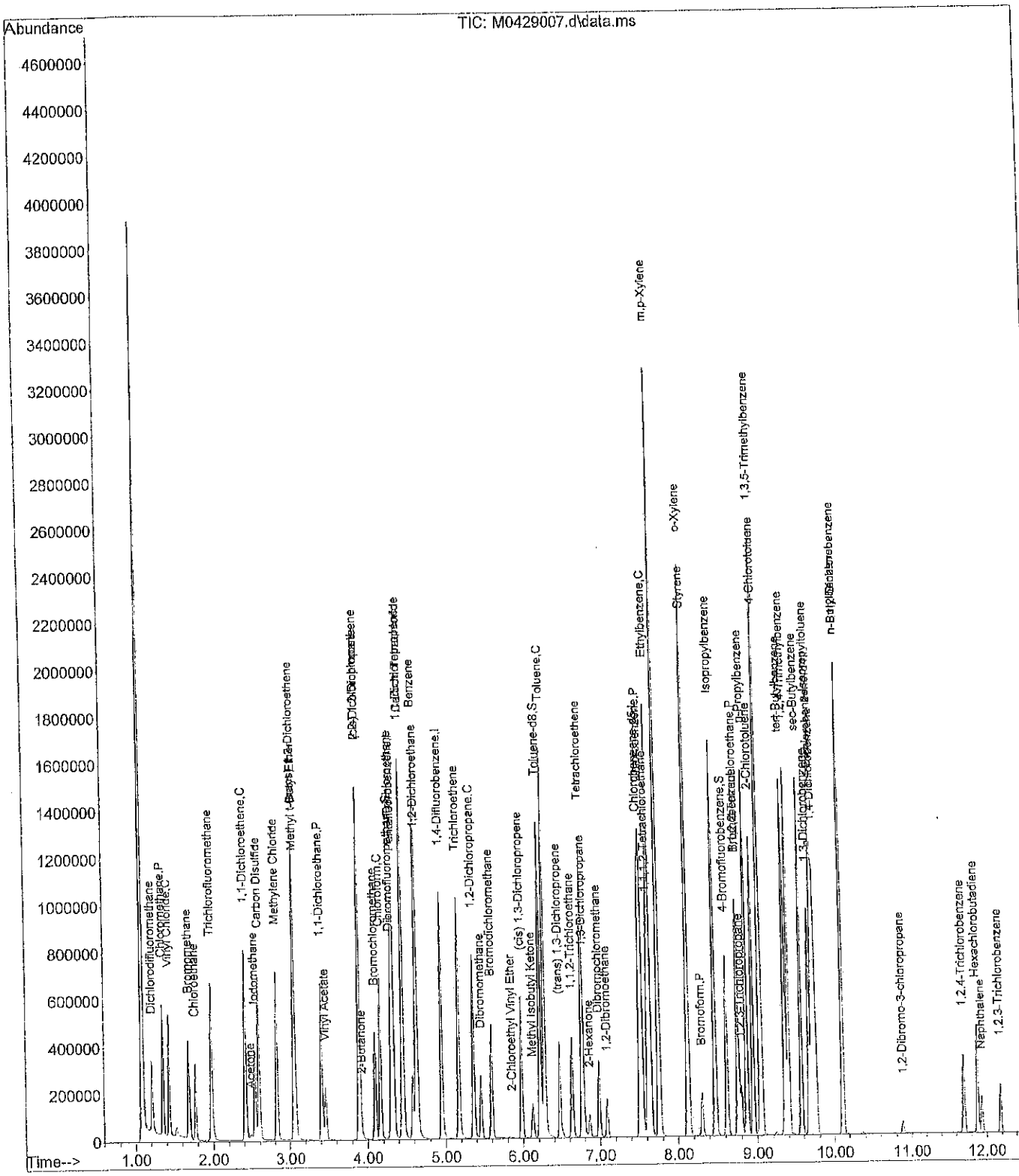
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	111691	10.13	ppb		99
46) Chlorobenzene	7.543	112	659300	9.94	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	220300	10.30	ppb		99
48) Ethylbenzene	7.646	91	1267331	9.73	ppb		98
49) m,p-Xylene	7.756	91	1915473	19.65	ppb		97
50) o-Xylene	8.128	91	881075	9.89	ppb		99
51) Styrene	8.140	104	699441	10.53	ppb		100
52) Bromoform	8.311	173	92597	11.19	ppb		98
53) Isopropylbenzene	8.475	105	1130399	10.17	ppb		98
56) Bromobenzene	8.762	156	238142	10.32	ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	104614	9.36	ppb		98
58) 1,2,3-Trichloropropane	8.799	75	81801	9.27	ppb	#	100
59) n-Propylbenzene	8.872	91	1275022	9.37	ppb		98
60) 2-Chlorotoluene	8.951	126	260706	9.94	ppb		100
61) 4-Chlorotoluene	9.055	126	252976	9.83	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	967965	10.04	ppb		97
63) tert-Butylbenzene	9.353	119	768277	10.12	ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	913461	10.22	ppb		97
65) sec-Butylbenzene	9.567	105	1098176	10.03	ppb		98
66) 1,3-Dichlorobenzene	9.670	146	425294	10.67	ppb		99
67) p-Isopropyltoluene	9.713	119	898661	10.42	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	442331	10.61	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	324378	11.21	ppb		98
70) n-Butylbenzene	10.109	91	785400	9.97	ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	16255	12.74	ppb		93
72) 1,2,4-Trichlorobenzene	11.700	180	116474	14.58	ppb		99
73) Hexachlorobutadiene	11.877	225	103943	13.90	ppb		98
74) Naphthalene	11.944	128	133896	14.11	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	72277	13.88	ppb		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429007.d
Acq On : 29 Apr 2014 9:56 am
Operator :
Sample : 10 PPB ICAL
Misc : V3-124-7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 29 10:08:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429008.d
Acq On : 29 Apr 2014 10:19 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 29 10:32:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	552718	10.00 ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	785759	10.00 ppb		0.00
38) Chlorobenzene-d5	7.518	117	615720	10.00 ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	262850	10.00 ppb		0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	202150	8.03 ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 80.30%			
36) Toluene-d8	6.220	98	865667	9.35 ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.50%			
54) 4-Bromofluorobenzene	8.622	95	268656	9.83 ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 98.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	947155	22.33 ppb		100
3) Chloromethane	1.343	50	1468934	22.41 ppb		99
4) Vinyl Chloride	1.428	62	1325794	24.01 ppb		99
5) Bromomethane	1.690	96	598459	22.81 ppb		99
6) Chloroethane	1.769	64	657697	22.71 ppb		98
7) Trichlorofluoromethane	1.977	101	1388719	23.35 ppb		99
8) 1,1-Dichloroethene	2.416	61	1459215	22.96 ppb		100
9) Acetone	2.483	43	81673	21.77 ppb		96
10) Iodomethane	2.538	142	1121054	25.62 ppb		95
11) Carbon Disulfide	2.592	76	2478867	24.53 ppb		100
12) Methylene Chloride	2.824	49	1232571	22.55 ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	1466932	22.93 ppb		100
14) Methyl t-Butyl Ether	3.068	73	935183	23.21 ppb		96
15) 1,1-Dichloroethane	3.409	63	1644756	22.56 ppb		99
16) Vinyl Acetate	3.464	43	889593	28.86 ppb		99
17) 2,2-Dichloropropane	3.897	77	963294	20.69 ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	1487151	22.08 ppb		100
19) 2-Butanone	3.928	43	143591	21.46 ppb		96
20) Bromochloromethane	4.098	130	350306	24.83 ppb		93
21) Chloroform	4.165	83	1241787	21.55 ppb		99
22) 1,1,1-Trichloroethane	4.318	97	1201613	21.63 ppb	#	69
24) Carbon Tetrachloride	4.458	117	1136900	21.90 ppb		98
25) 1,1-Dichloropropene	4.452	75	1041187	21.62 ppb		99
26) Benzene	4.629	78	2830663	22.35 ppb		99
27) 1,2-Dichloroethane	4.641	62	717481	20.46 ppb		100
29) Trichloroethene	5.171	130	872947	25.19 ppb		99
30) 1,2-Dichloropropane	5.360	63	786996	24.88 ppb		100
31) Dibromomethane	5.464	174	290067	28.56 ppb		99
32) Bromodichloromethane	5.598	83	761406	24.21 ppb		99
33) 2-Chloroethyl Vinyl Ether	5.866	63	7535	4.45 ppb	#	73
34) (cis) 1,3-Dichloropropene	5.982	75	817771	25.30 ppb		99
35) Methyl Isobutyl Ketone	6.122	43	291347	25.19 ppb		98
37) Toluene	6.281	91	3096220	24.21 ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	547902	25.28 ppb		100
40) 1,1,2-Trichloroethane	6.634	97	324684	24.91 ppb		100
41) Tetrachloroethene	6.769	166	915863	27.26 ppb		99
42) 1,3-Dichloropropane	6.787	76	562912	24.85 ppb		98
43) 2-Hexanone	6.866	43	191050	24.57 ppb		98
44) Dibromochloromethane	6.988	129	458203	27.22 ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429008.d
Acq On : 29 Apr 2014 10:19 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 29 10:32:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

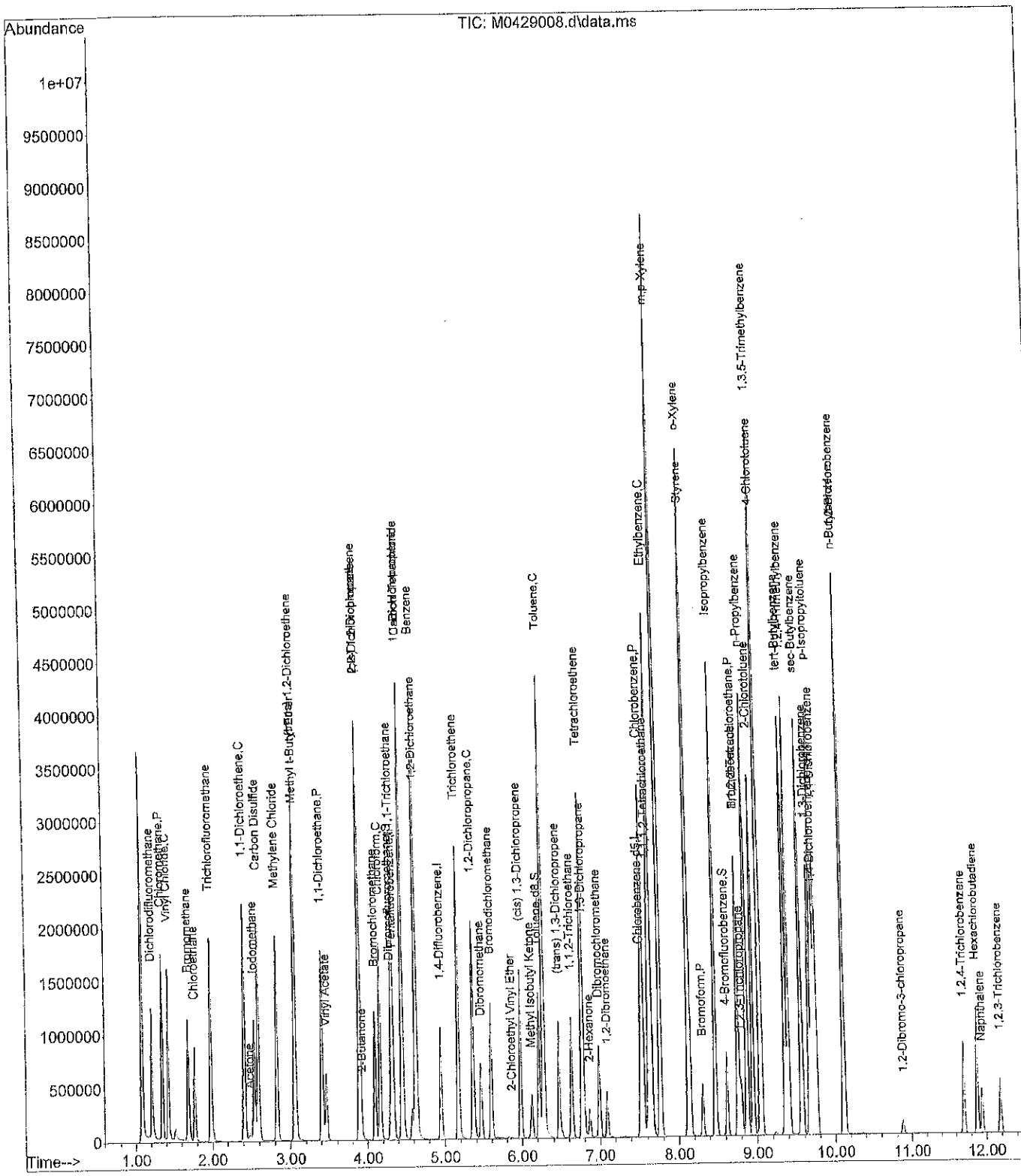
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	296547	26.03 ppb		97
46) Chlorobenzene	7.543	112	1741386	25.40 ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	589836	26.70 ppb		99
48) Ethylbenzene	7.646	91	3444537	25.59 ppb		99
49) m,p-Xylene	7.756	91	5095029	50.58 ppb		98
50) o-Xylene	8.128	91	2351048	25.55 ppb		98
51) Styrene	8.140	104	1850771	26.98 ppb		100
52) Bromoform	8.311	173	247276	28.92 ppb		98
53) Isopropylbenzene	8.475	105	3029744	26.38 ppb		99
56) Bromobenzene	8.762	156	622285	26.16 ppb		98
57) 1,1,2,2-Tetrachloroethane	8.762	83	275987	23.96 ppb		97
58) 1,2,3-Trichloropropane	8.799	75	207364	22.81 ppb	#	100
59) n-Propylbenzene	8.872	91	3413168	24.34 ppb		99
60) 2-Chlorotoluene	8.951	126	688982	25.50 ppb		99
61) 4-Chlorotoluene	9.055	126	671210	25.31 ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	2576139	25.94 ppb		98
63) tert-Butylbenzene	9.353	119	2040900	26.09 ppb		98
64) 1,2,4-Trimethylbenzene	9.402	105	2409428	26.18 ppb		97
65) sec-Butylbenzene	9.567	105	2888448	25.60 ppb		98
66) 1,3-Dichlorobenzene	9.670	146	1105244	26.90 ppb		99
67) p-Isopropyltoluene	9.713	119	2386697	26.86 ppb		100
68) 1,4-Dichlorobenzene	9.756	146	1148406	26.74 ppb		100
69) 1,2-Dichlorobenzene	10.115	146	823176	27.62 ppb		99
70) n-Butylbenzene	10.109	91	2088207	25.74 ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	42667	32.45 ppb		92
72) 1,2,4-Trichlorobenzene	11.707	180	309114	37.57 ppb		98
73) Hexachlorobutadiene	11.877	225	272928	35.44 ppb		100
74) Naphthalene	11.944	128	357030	36.51 ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	186996	34.66 ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429008.d
Acq On : 29 Apr 2014 10:19 am
Operator :
Sample : 25 PPB ICAL
Misc : V3-124-6
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 29 10:32:09 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429010.d
Acq On : 29 Apr 2014 11:06 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 29 11:18:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	553064	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	782743	10.00	ppb		0.00
38) Chlorobenzene-d5	7.518	117	607122	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	253787	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.299	111	199084	7.90	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 79.00%				
36) Toluene-d8	6.220	98	864297	9.37	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 93.70%				
54) 4-Bromofluorobenzene	8.622	95	257642	9.56	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 95.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	1832503	43.18	ppb		100
3) Chloromethane	1.343	50	2910390	44.38	ppb		99
4) Vinyl Chloride	1.428	62	2528972	45.78	ppb		99
5) Bromomethane	1.690	96	1159039	44.15	ppb		99
6) Chloroethane	1.769	64	1222307	42.19	ppb		99
7) Trichlorofluoromethane	1.977	101	2691673	45.24	ppb		100
8) 1,1-Dichloroethene	2.416	61	2821936	44.38	ppb		99
9) Acetone	2.483	43	158053	42.67	ppb		95
10) Iodomethane	2.538	142	2156824	48.91	ppb		93
11) Carbon Disulfide	2.592	76	4793717	47.42	ppb		100
12) Methylene Chloride	2.824	49	2350957	42.98	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	2880372	44.99	ppb		100
14) Methyl t-Butyl Ether	3.068	73	1849756	45.87	ppb		95
15) 1,1-Dichloroethane	3.409	63	3186919	43.68	ppb		99
16) Vinyl Acetate	3.464	43	1762654	57.15	ppb		99
17) 2,2-Dichloropropane	3.897	77	1840257	39.50	ppb		99
18) (cis) 1,2-Dichloroethene	3.897	61	2892369	42.93	ppb		99
19) 2-Butanone	3.922	43	270858	40.46	ppb		98
20) Bromochloromethane	4.098	130	679522	48.13	ppb		92
21) Chloroform	4.165	83	2411301	41.82	ppb		100
22) 1,1,1-Trichloroethane	4.318	97	2342818	42.14	ppb	#	60
24) Carbon Tetrachloride	4.458	117	2229569	42.92	ppb		98
25) 1,1-Dichloropropene	4.452	75	2013745	41.79	ppb		100
26) Benzene	4.629	78	5523145	43.59	ppb		99
27) 1,2-Dichloroethane	4.641	62	1393012	39.70	ppb		100
29) Trichloroethene	5.171	130	1715291	49.68	ppb		100
30) 1,2-Dichloropropane	5.360	63	1557872	49.45	ppb		100
31) Dibromomethane	5.464	174	546976	54.06	ppb		99
32) Bromodichloromethane	5.598	83	1496778	47.77	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.866	63	16470	9.77	ppb	#	75
34) (cis) 1,3-Dichloropropene	5.982	75	1606427	49.89	ppb		100
35) Methyl Isobutyl Ketone	6.122	43	558598	48.48	ppb		96
37) Toluene	6.281	91	6064438	47.60	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	1075862	50.34	ppb		99
40) 1,1,2-Trichloroethane	6.634	97	635415	49.45	ppb		99
41) Tetrachloroethene	6.769	166	1769441	53.42	ppb		99
42) 1,3-Dichloropropane	6.787	76	1091661	48.88	ppb		98
43) 2-Hexanone	6.866	43	362451	47.27	ppb		96
44) Dibromochloromethane	6.988	129	906589	54.61	ppb		99

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429010.d
Acq On : 29 Apr 2014 11:06 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 29 11:18:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration

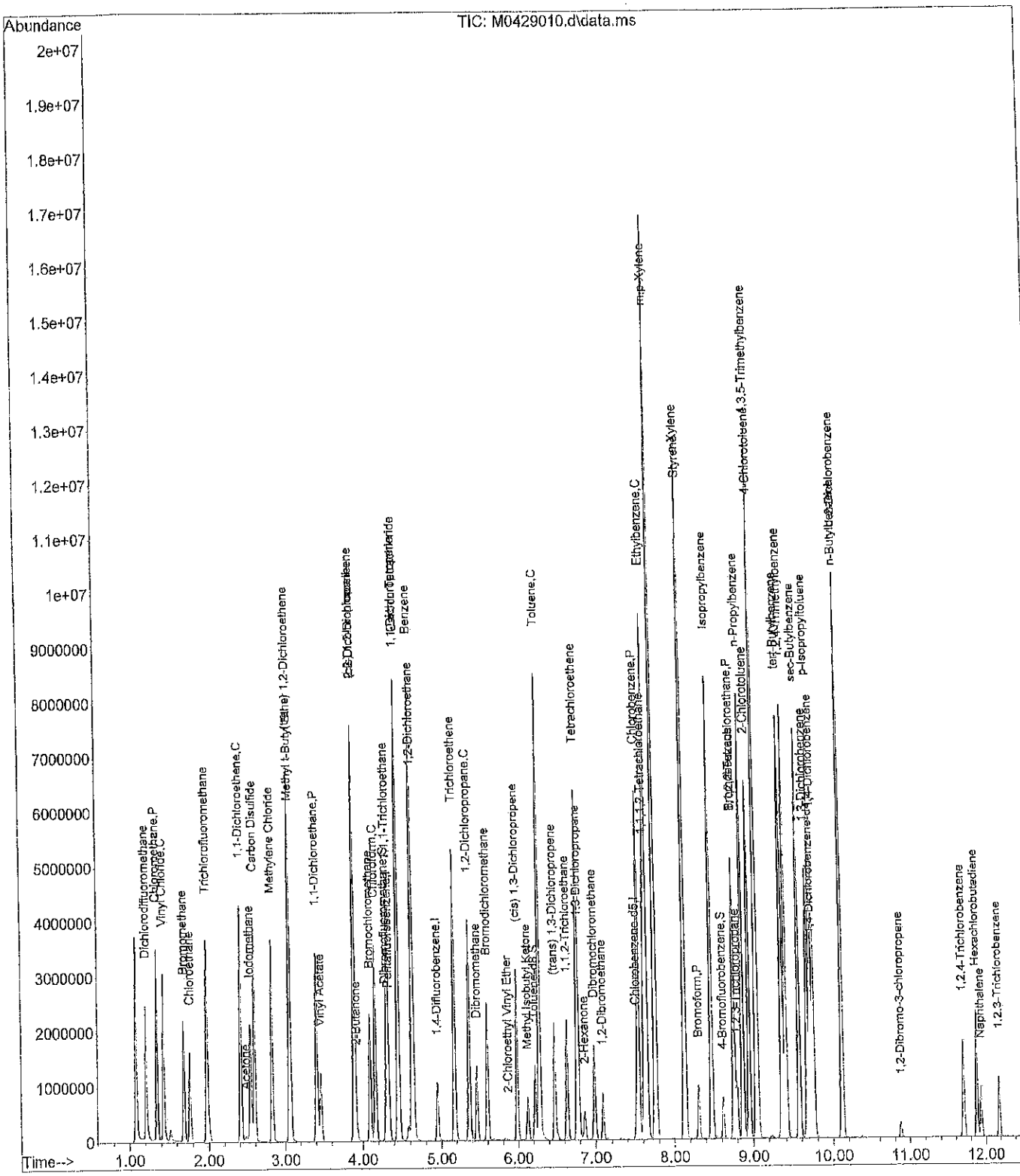
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	572300	50.95	ppb		98
46) Chlorobenzene	7.543	112	3422802	50.64	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.622	133	1165913	53.53	ppb		99
48) Ethylbenzene	7.646	91	6735262	50.74	ppb		99
49) m,p-Xylene	7.756	91	10044960	101.14	ppb		99
50) o-Xylene	8.128	91	4628655	51.01	ppb		99
51) Styrene	8.140	104	3588827	53.05	ppb		100
52) Bromoform	8.311	173	495750	58.81	ppb		99
53) Isopropylbenzene	8.475	105	5901746	52.11	ppb		99
56) Bromobenzene	8.762	156	1215842	52.95	ppb		97
57) 1,1,2,2-Tetrachloroethane	8.762	83	530951	47.74	ppb		99
58) 1,2,3-Trichloropropane	8.799	75	404272	46.05	ppb	#	100
59) n-Propylbenzene	8.872	91	6592244	48.69	ppb		99
60) 2-Chlorotoluene	8.951	126	1327794	50.90	ppb		100
61) 4-Chlorotoluene	9.055	126	1290977	50.42	ppb		99
62) 1,3,5-Trimethylbenzene	9.042	105	4983662	51.98	ppb		98
63) tert-Butylbenzene	9.353	119	3996764	52.91	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	4658728	52.42	ppb		97
65) sec-Butylbenzene	9.567	105	5621191	51.59	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	2158815	54.43	ppb		100
67) p-Isopropyltoluene	9.713	119	4622966	53.88	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	2228247	53.73	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	1634296	56.80	ppb		99
70) n-Butylbenzene	10.109	91	4078715	52.07	ppb		96
71) 1,2-Dibromo-3-chloropr...	10.884	157	85991	67.74	ppb		94
72) 1,2,4-Trichlorobenzene	11.700	180	639708	80.53	ppb		98
73) Hexachlorobutadiene	11.883	225	526804	70.85	ppb		99
74) Naphthalene	11.944	128	781812	82.80	ppb		99
75) 1,2,3-Trichlorobenzene	12.182	180	389575	74.65	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429010.d
Acq On : 29 Apr 2014 11:06 am
Operator :
Sample : 50 PPB ICAL
Misc : V3-124-6
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 29 11:18:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140328W.M
Quant Title :
QLast Update : Fri Mar 28 12:41:38 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429013.d
Acq On : 29 Apr 2014 12:16 pm
Operator :
Sample : ICV0429W1
Misc : V3-124-3
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 29 13:05:29 2014
Quant Method : C:\msdchem\1\methods\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:05:18 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.336	168	545345	10.00	ppb	0.00
28) 1,4-Difluorobenzene	4.952	114	778326	10.00	ppb	0.00
38) Chlorobenzene-d5	7.518	117	610930	10.00	ppb	0.00
55) 1,4-Dichlorobenzene-d4	9.731	152	264489	10.00	ppb	0.00
System Monitoring Compounds						
23) Dibromofluoromethane	4.299	111	202700	10.27	ppb	0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 102.70%			
36) Toluene-d8	6.220	98	856602	10.06	ppb	0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 100.60%			
54) 4-Bromofluorobenzene	8.622	95	265291	10.11	ppb	0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 101.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	281146	8.68	ppb	99
3) Chloromethane	1.343	50	551018	10.99	ppb	99
4) Vinyl Chloride	1.428	62	467878	10.47	ppb	98
5) Bromomethane	1.684	96	228926	9.67	ppb	100
6) Chloroethane	1.763	64	237525	9.90	ppb	99
7) Trichlorofluoromethane	1.977	101	522177	10.20	ppb	99
8) 1,1-Dichloroethene	2.410	61	587745	10.88	ppb	99
9) Acetone	2.483	43	33240	9.42	ppb	99
10) Iodomethane	2.538	142	387012	9.52	ppb	98
11) Carbon Disulfide	2.592	76	891714	10.12	ppb	100
12) Methylene Chloride	2.824	49	459078	9.77	ppb	99
13) (trans) 1,2-Dichloroet...	3.056	61	563576	10.21	ppb	99
14) Methyl t-Butyl Ether	3.068	73	382041	11.03	ppb	99
15) 1,1-Dichloroethane	3.409	63	650614	10.43	ppb	100
16) Vinyl Acetate	3.464	43	108984	3.71	ppb	99
17) 2,2-Dichloropropane	3.891	77	348113	9.26	ppb	98
18) (cis) 1,2-Dichloroethene	3.897	61	574154	10.16	ppb	99
19) 2-Butanone	3.928	43	55291	9.69	ppb	98
20) Bromochloromethane	4.098	130	142145	10.85	ppb	98
21) Chloroform	4.165	83	499137	10.62	ppb	99
22) 1,1,1-Trichloroethane	4.318	97	467662	10.32	ppb	96
24) Carbon Tetrachloride	4.458	117	447108	10.39	ppb	100
25) 1,1-Dichloropropene	4.452	75	405103	10.23	ppb	100
26) Benzene	4.629	78	1108259	10.23	ppb	99
27) 1,2-Dichloroethane	4.641	62	285491	10.50	ppb	99
29) Trichloroethene	5.171	130	389153	11.31	ppb	100
30) 1,2-Dichloropropane	5.360	63	312689	10.57	ppb	99
31) Dibromomethane	5.464	174	114318	10.71	ppb	99
32) Bromodichloromethane	5.598	83	305687	10.88	ppb	99
33) 2-Chloroethyl Vinyl Ether	5.866	63	2166	8.18	ppb #	100
34) (cis) 1,3-Dichloropropene	5.982	75	317587	10.78	ppb	99
35) Methyl Isobutyl Ketone	6.122	43	107486	10.32	ppb	98
37) Toluene	6.281	91	1199856	10.17	ppb	99
39) (trans) 1,3-Dichloropr...	6.470	75	215501	10.60	ppb	99
40) 1,1,2-Trichloroethane	6.634	97	131426	10.43	ppb	98
41) Tetrachloroethene	6.768	166	361271	9.99	ppb	100
42) 1,3-Dichloropropane	6.787	76	226618	10.42	ppb	99
43) 2-Hexanone	6.866	43	71707	10.33	ppb	95
44) Dibromochloromethane	6.988	129	186776	10.91	ppb	98

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429013.d
Acq On : 29 Apr 2014 12:16 pm
Operator :
Sample : ICV0429W1
Misc : V3-124-3
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 29 13:05:29 2014
Quant Method : C:\msdchem\1\methods\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:05:18 2014
Response via : Initial Calibration

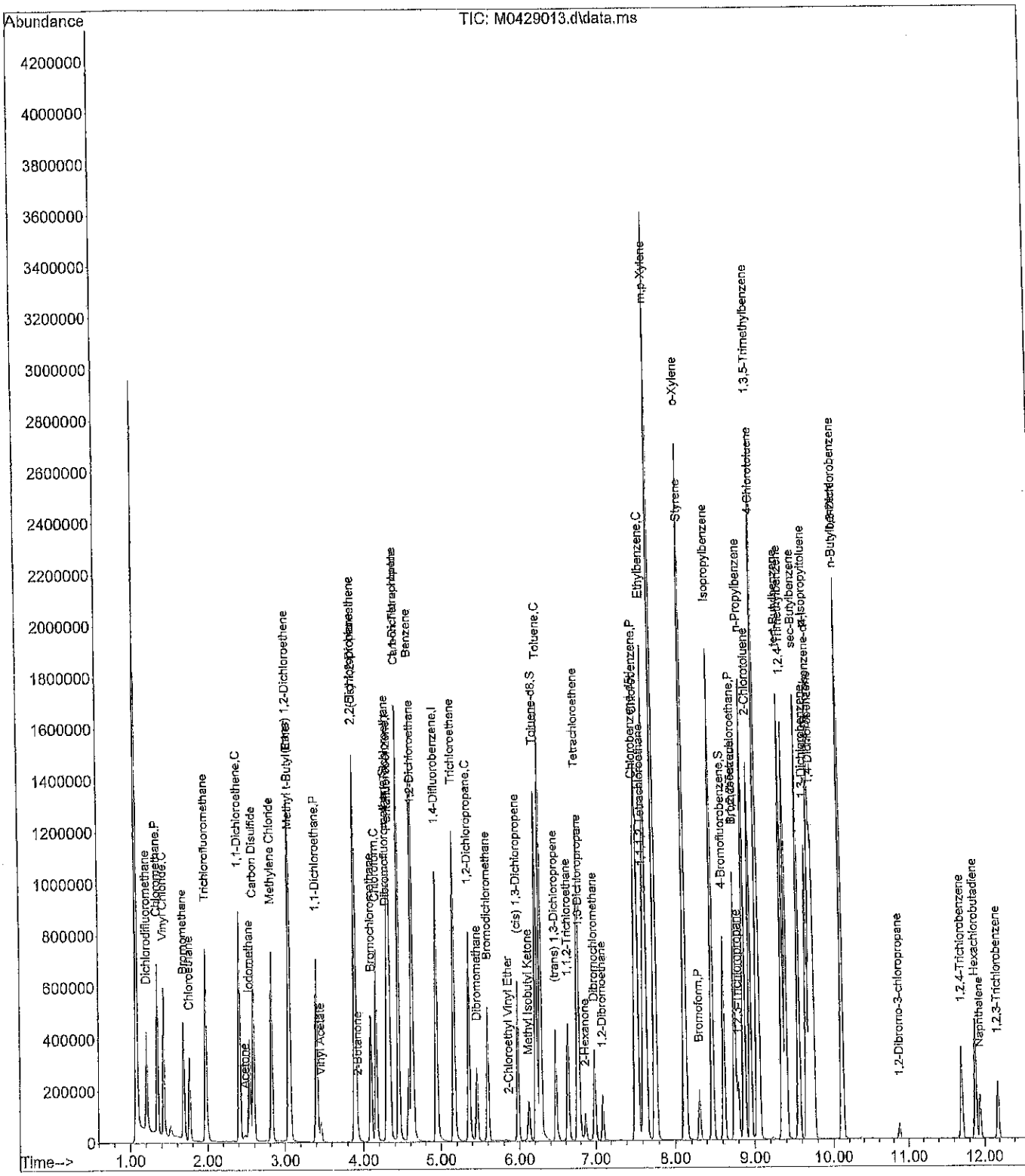
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	121208	10.77	ppb		100
46) Chlorobenzene	7.543	112	754958	11.11	ppb		99
47) 1,1,1,2-Tetrachloroethane	7.616	133	232738	10.46	ppb		100
48) Ethylbenzene	7.646	91	1325946	10.21	ppb		100
49) m,p-Xylene	7.756	91	2074583	21.46	ppb		100
50) o-Xylene	8.128	91	1012622	11.44	ppb		100
51) Styrene	8.140	104	733805	10.77	ppb		100
52) Bromoform	8.311	173	97875	10.76	ppb		98
53) Isopropylbenzene	8.475	105	1298630	11.56	ppb		99
56) Bromobenzene	8.762	156	258343	10.30	ppb		100
57) 1,1,2,2-Tetrachloroethane	8.762	83	94716	8.97	ppb		100
58) 1,2,3-Trichloropropane	8.799	75	87991	10.35	ppb	#	100
59) n-Propylbenzene	8.872	91	1443555	10.86	ppb		99
60) 2-Chlorotoluene	8.951	126	303283	11.29	ppb		98
61) 4-Chlorotoluene	9.055	126	295001	11.06	ppb		100
62) 1,3,5-Trimethylbenzene	9.042	105	1002765	10.09	ppb		99
63) tert-Butylbenzene	9.353	119	878287	11.14	ppb		100
64) 1,2,4-Trimethylbenzene	9.402	105	943689	10.22	ppb		99
65) sec-Butylbenzene	9.567	105	1240305	11.14	ppb		99
66) 1,3-Dichlorobenzene	9.670	146	499116	11.43	ppb		98
67) p-Isopropyltoluene	9.713	119	993346	11.04	ppb		100
68) 1,4-Dichlorobenzene	9.756	146	457850	10.10	ppb		100
69) 1,2-Dichlorobenzene	10.115	146	375678	11.71	ppb		99
70) n-Butylbenzene	10.109	91	796584	10.01	ppb		99
71) 1,2-Dibromo-3-chloropr...	10.884	157	17314	10.49	ppb		95
72) 1,2,4-Trichlorobenzene	11.707	180	129758	10.25	ppb		98
73) Hexachlorobutadiene	11.883	225	102981	10.13	ppb		97
74) Naphthalene	11.944	128	143524	9.83	ppb		97
75) 1,2,3-Trichlorobenzene	12.182	180	78512	10.23	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429013.d
Acq On : 29 Apr 2014 12:16 pm
Operator :
Sample : ICV0429W1
Misc : V3-124-3
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 29 13:05:29 2014
Quant Method : C:\msdchem\1\methods\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:05:18 2014
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501002.d
Acq On : 1 May 2014 7:56 am
Operator :
Sample : CCV0501W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 01 08:09:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	10.000	10.000	0.0	95	0.00
2		Dichlorodifluoromethane	10.000	9.819	1.8	134	0.00
3	P	Chloromethane	10.000	11.734	-17.3	122	0.00
4	C	Vinyl Chloride	10.000	10.470	-4.7#	106	0.00
5		Bromomethane	10.000	8.993	10.1	98	0.00
6		Chloroethane	10.000	9.874	1.3	99	0.00
7		Trichlorofluoromethane	10.000	10.162	-1.6	101	0.00
8	C	1,1-Dichloroethene	10.000	10.339	-3.4#	102	0.00
9		Acetone	10.000	6.997	30.0#	74	0.00
10		Iodomethane	10.000	6.523	34.8#	65	0.00
11		Carbon Disulfide	10.000	10.610	-6.1	108	0.00
12		Methylene Chloride	10.000	9.045	9.6	88	0.00
13		(trans) 1,2-Dichloroethene	10.000	10.411	-4.1	104	0.00
14		Methyl t-Butyl Ether	10.000	8.246	17.5	81	0.00
15	P	1,1-Dichloroethane	10.000	9.928	0.7	98	0.00
16		Vinyl Acetate	10.000	8.835	11.6	88	0.00
17		2,2-Dichloropropane	10.000	10.651	-6.5	106	0.00
18		(cis) 1,2-Dichloroethene	10.000	9.672	3.3	94	0.00
19		2-Butanone	10.000	8.079	19.2	78	0.00
20		Bromochloromethane	10.000	9.086	9.1	87	0.00
21	C	Chloroform	10.000	9.576	4.2#	92	0.00
22		1,1,1-Trichloroethane	10.000	10.170	-1.7	100	0.00
23	S	Dibromofluoromethane	10.000	8.441	15.6	81	0.00
24		Carbon Tetrachloride	10.000	10.375	-3.8	102	0.00
25		1,1-Dichloropropene	10.000	10.066	-0.7	98	0.00
26		Benzene	10.000	9.820	1.8	96	0.00
27		1,2-Dichloroethane	10.000	8.924	10.8	85	0.00
28	I	1,4-Difluorobenzene	10.000	10.000	0.0	92	0.00
29		Trichloroethene	10.000	10.056	-0.6	97	0.00
30	C	1,2-Dichloropropane	10.000	9.784	2.2#	89	0.00
31		Dibromomethane	10.000	9.211	7.9	85	0.00
32		Bromodichloromethane	10.000	9.652	3.5	89	0.00
33		2-Chloroethyl Vinyl Ether	10.000	10.266	-2.7	110	0.00
34		(cis) 1,3-Dichloropropene	10.000	9.919	0.8	89	0.00
35		Methyl Isobutyl Ketone	10.000	8.061	19.4	73	0.00
36	S	Toluene-d8	10.000	9.980	0.2	93	0.00
37	C	Toluene	10.000	10.156	-1.6#	96	0.00
38	I	Chlorobenzene-d5	10.000	10.000	0.0	88	0.00
39		(trans) 1,3-Dichloropropene	10.000	9.995	0.1	84	0.00
40		1,1,2-Trichloroethane	10.000	9.475	5.3	83	0.00
41		Tetrachloroethene	10.000	11.054	-10.5	99	0.00
42		1,3-Dichloropropane	10.000	9.484	5.2	83	0.00
43		2-Hexanone	10.000	8.167	18.3	70	0.00
44		Dibromochloromethane	10.000	9.809	1.9	85	0.00
45		1,2-Dibromoethane	10.000	9.520	4.8	83	0.00
46	P	Chlorobenzene	10.000	10.248	-2.5	91	0.00
47		1,1,1,2-Tetrachloroethane	10.000	10.314	-3.1	90	0.00
48	C	Ethylbenzene	10.000	11.096	-11.0#	98	0.00

Evaluate Continuing Calibration Report

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501002.d
Acq On : 1 May 2014 7:56 am
Operator :
Sample : CCV0501W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 01 08:09:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Min. RRF : 20.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49		m,p-Xylene	20.000	22.180	-10.9	96	0.00
50		o-Xylene	10.000	10.697	-7.0	93	0.00
51		Styrene	10.000	10.564	-5.6	89	0.00
52	P	Bromoform	10.000	9.665	3.4	82	0.00
53		Isopropylbenzene	10.000	11.391	-13.9	97	0.00
54	S	4-Bromofluorobenzene	10.000	9.703	3.0	86	0.00
55	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	80	0.00
56		Bromobenzene	10.000	10.320	-3.2	84	0.00
57	P	1,1,2,2-Tetrachloroethane	10.000	10.858	-8.6	85	0.00
58		1,2,3-Trichloropropane	10.000	9.410	5.9	76	0.00
59		n-Propylbenzene	10.000	11.932	-19.3	96	0.00
60		2-Chlorotoluene	10.000	11.441	-14.4	91	0.00
61		4-Chlorotoluene	10.000	11.141	-11.4	91	0.00
62		1,3,5-Trimethylbenzene	10.000	11.762	-17.6	93	0.00
63		tert-Butylbenzene	10.000	11.968	-19.7	95	0.00
64		1,2,4-Trimethylbenzene	10.000	11.394	-13.9	89	0.00
65		sec-Butylbenzene	10.000	12.133	-21.3#	95	0.00
66		1,3-Dichlorobenzene	10.000	10.364	-3.6	82	0.00
67		p-Isopropyltoluene	10.000	12.021	-20.2#	93	0.00
68		1,4-Dichlorobenzene	10.000	10.319	-3.2	82	0.00
69		1,2-Dichlorobenzene	10.000	10.049	-0.5	77	0.00
70		n-Butylbenzene	10.000	11.781	-17.8	92	0.00
71		1,2-Dibromo-3-chloropropane	10.000	8.629	13.7	68	0.00
72		1,2,4-Trichlorobenzene	10.000	7.389	26.1#	62	0.00
73		Hexachlorobutadiene	10.000	9.512	4.9	72	0.00
74		Naphthalene	10.000	6.453	35.5#	52	0.00
75		1,2,3-Trichlorobenzene	10.000	6.769	32.3#	55	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501002.d
Acq On : 1 May 2014 7:56 am
Operator :
Sample : CCV0501W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 01 08:09:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.336	168	522984	10.00	ppb		0.00
28) 1,4-Difluorobenzene	4.952	114	721879	10.00	ppb		0.00
38) Chlorobenzene-d5	7.519	117	525996	10.00	ppb		0.00
55) 1,4-Dichlorobenzene-d4	9.732	152	204660	10.00	ppb		0.00
System Monitoring Compounds							
23) Dibromofluoromethane	4.300	111	159730	8.44	ppb		0.00
Spiked Amount 10.000	Range 62 - 122		Recovery = 84.40%				
36) Toluene-d8	6.220	98	788444	9.98	ppb		0.00
Spiked Amount 10.000	Range 70 - 120		Recovery = 99.80%				
54) 4-Bromofluorobenzene	8.616	95	219253	9.70	ppb		0.00
Spiked Amount 10.000	Range 71 - 120		Recovery = 97.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.209	85	309985	9.82	ppb		98
3) Chloromethane	1.343	50	564380	11.73	ppb		99
4) Vinyl Chloride	1.428	62	448864	10.47	ppb		98
5) Bromomethane	1.690	96	204102	8.99	ppb		99
6) Chloroethane	1.770	64	227086	9.87	ppb		98
7) Trichlorofluoromethane	1.977	101	498848	10.16	ppb		99
8) 1,1-Dichloroethene	2.416	61	535446	10.34	ppb		99
9) Acetone	2.483	43	23669	7.00	ppb		96
10) Iodomethane	2.538	142	247029	6.52	ppb		97
11) Carbon Disulfide	2.593	76	896641	10.61	ppb		100
12) Methylene Chloride	2.824	49	407640	9.04	ppb		100
13) (trans) 1,2-Dichloroet...	3.056	61	551252	10.41	ppb		99
14) Methyl t-Butyl Ether	3.062	73	273933	8.25	ppb		99
15) 1,1-Dichloroethane	3.410	63	593736	9.93	ppb		100
16) Vinyl Acetate	3.458	43	274715	8.83	ppb		100
17) 2,2-Dichloropropane	3.891	77	383885	10.65	ppb		100
18) (cis) 1,2-Dichloroethene	3.897	61	523934	9.67	ppb		100
19) 2-Butanone	3.922	43	44187	8.08	ppb		96
20) Bromochloromethane	4.098	130	114202	9.09	ppb		99
21) Chloroform	4.166	83	431441	9.58	ppb		100
22) 1,1,1-Trichloroethane	4.318	97	441784	10.17	ppb		97
24) Carbon Tetrachloride	4.452	117	428217	10.37	ppb		99
25) 1,1-Dichloropropene	4.452	75	382417	10.07	ppb		100
26) Benzene	4.629	78	1019696	9.82	ppb		100
27) 1,2-Dichloroethane	4.641	62	232628	8.92	ppb		99
29) Trichloroethene	5.171	130	320889	10.06	ppb		100
30) 1,2-Dichloropropane	5.360	63	268318	9.78	ppb		100
31) Dibromomethane	5.464	174	91214	9.21	ppb		98
32) Bromodichloromethane	5.598	83	251583	9.65	ppb		98
33) 2-Chloroethyl Vinyl Ether	5.866	63	2639	10.27	ppb	#	100
34) (cis) 1,3-Dichloropropene	5.982	75	271134	9.92	ppb		99
35) Methyl Isobutyl Ketone	6.122	43	77894	8.06	ppb		99
37) Toluene	6.275	91	1111185	10.16	ppb		100
39) (trans) 1,3-Dichloropr...	6.470	75	174927	9.99	ppb		99
40) 1,1,2-Trichloroethane	6.635	97	102838	9.48	ppb		99
41) Tetrachloroethene	6.769	166	344196	11.05	ppb		99
42) 1,3-Dichloropropane	6.787	76	177518	9.48	ppb		100
43) 2-Hexanone	6.866	43	48788	8.17	ppb		95
44) Dibromochloromethane	6.988	129	144645	9.81	ppb		98

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501002.d
Acq On : 1 May 2014 7:56 am
Operator :
Sample : CCV0501W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 01 08:09:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration

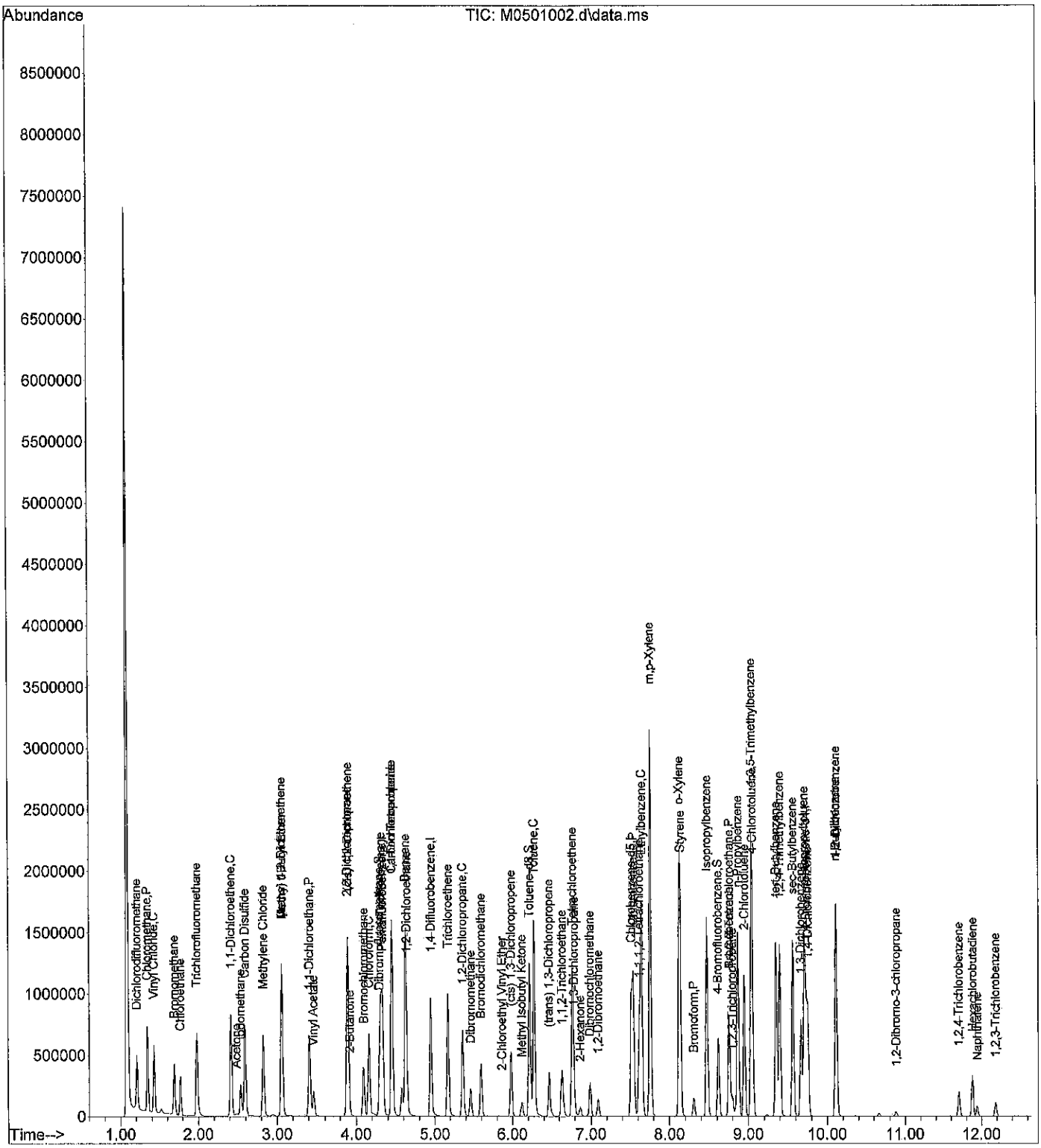
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,2-Dibromoethane	7.092	107	92283	9.52	ppb		98
46) Chlorobenzene	7.543	112	599761	10.25	ppb		100
47) 1,1,1,2-Tetrachloroethane	7.616	133	197633	10.31	ppb		98
48) Ethylbenzene	7.647	91	1240646	11.10	ppb		99
49) m,p-Xylene	7.756	91	1845675	22.18	ppb		99
50) o-Xylene	8.128	91	815036	10.70	ppb		100
51) Styrene	8.140	104	619769	10.56	ppb		100
52) Bromoform	8.311	173	75706	9.67	ppb		98
53) Isopropylbenzene	8.476	105	1101590	11.39	ppb		100
56) Bromobenzene	8.762	156	200388	10.32	ppb		99
57) 1,1,2,2-Tetrachloroethane	8.762	83	88743	10.86	ppb		99
58) 1,2,3-Trichloropropane	8.799	75	61887	9.41	ppb	#	100
59) n-Propylbenzene	8.872	91	1227584	11.93	ppb		100
60) 2-Chlorotoluene	8.951	126	237739	11.44	ppb		100
61) 4-Chlorotoluene	9.055	126	229867	11.14	ppb		99
62) 1,3,5-Trimethylbenzene	9.043	105	904819	11.76	ppb		100
63) tert-Butylbenzene	9.354	119	730113	11.97	ppb		99
64) 1,2,4-Trimethylbenzene	9.402	105	813818	11.39	ppb		99
65) sec-Butylbenzene	9.567	105	1044852	12.13	ppb		99
66) 1,3-Dichlorobenzene	9.671	146	350265	10.36	ppb		99
67) p-Isopropyltoluene	9.713	119	836996	12.02	ppb		99
68) 1,4-Dichlorobenzene	9.756	146	361958	10.32	ppb		100
69) 1,2-Dichlorobenzene	10.116	146	249509	10.05	ppb		99
70) n-Butylbenzene	10.110	91	725411	11.78	ppb		100
71) 1,2-Dibromo-3-chloropr...	10.884	157	11016	8.63	ppb		99
72) 1,2,4-Trichlorobenzene	11.701	180	71933	7.39	ppb		98
73) Hexachlorobutadiene	11.884	225	74829	9.51	ppb		98
74) Naphthalene	11.945	128	69978	6.45	ppb		96
75) 1,2,3-Trichlorobenzene	12.182	180	39844	6.77	ppb		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501002.d
Acq On : 1 May 2014 7:56 am
Operator :
Sample : CCV0501W1
Misc : V3-126-1
ALS Vial : 2 Sample Multiplier: 1

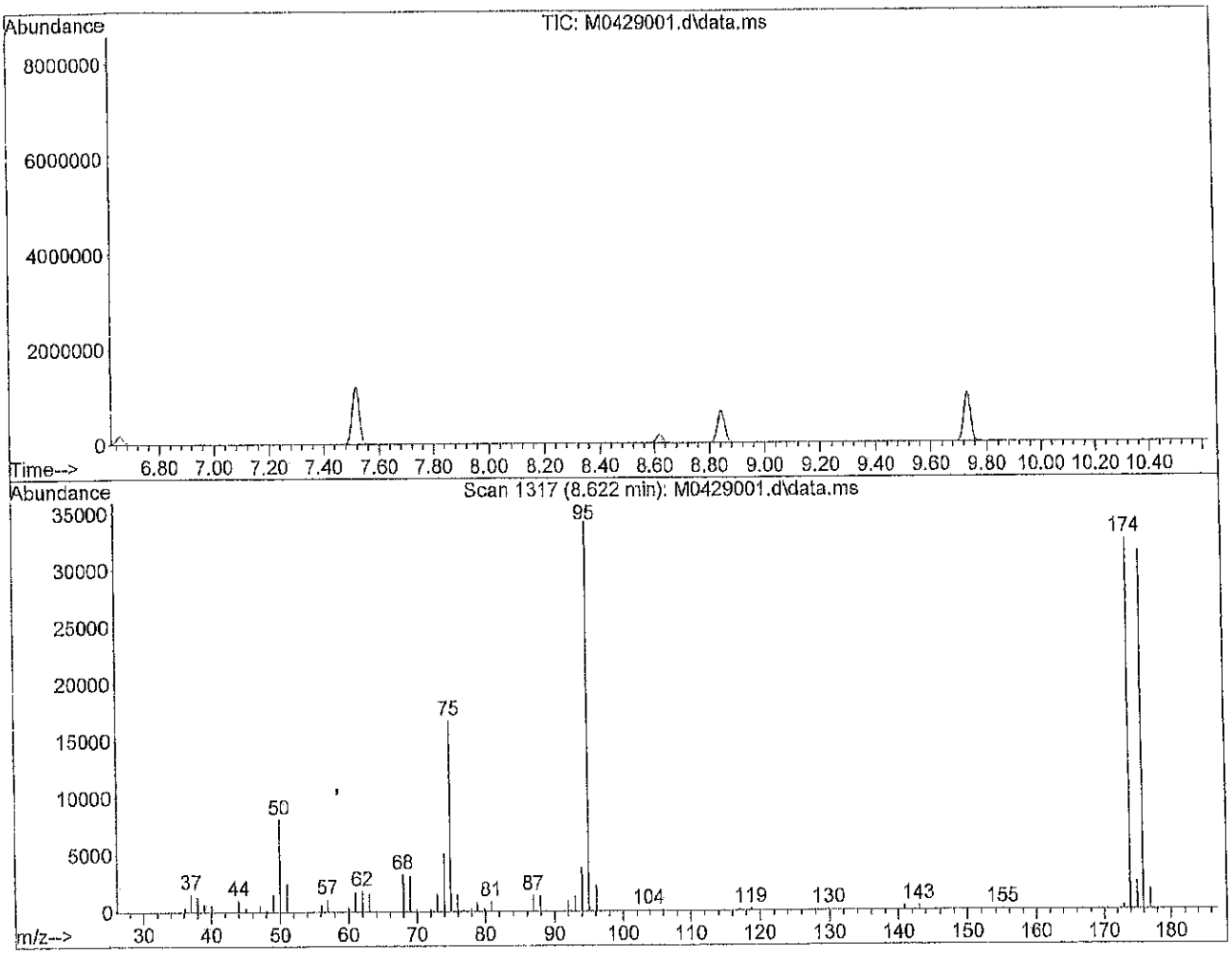
Quant Time: May 01 08:09:39 2014
Quant Method : C:\MSDCHEM\1\METHODS\M140429W.M
Quant Title :
QLast Update : Tue Apr 29 13:02:45 2014
Response via : Initial Calibration



Data Path : X:\VOLATILE\MORRIS\DATA\M140429\
Data File : M0429001.d
Acq On : 29 Apr 2014 7:03 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140328W.M
Title :
Last Update : Fri Mar 28 12:43:46 2014



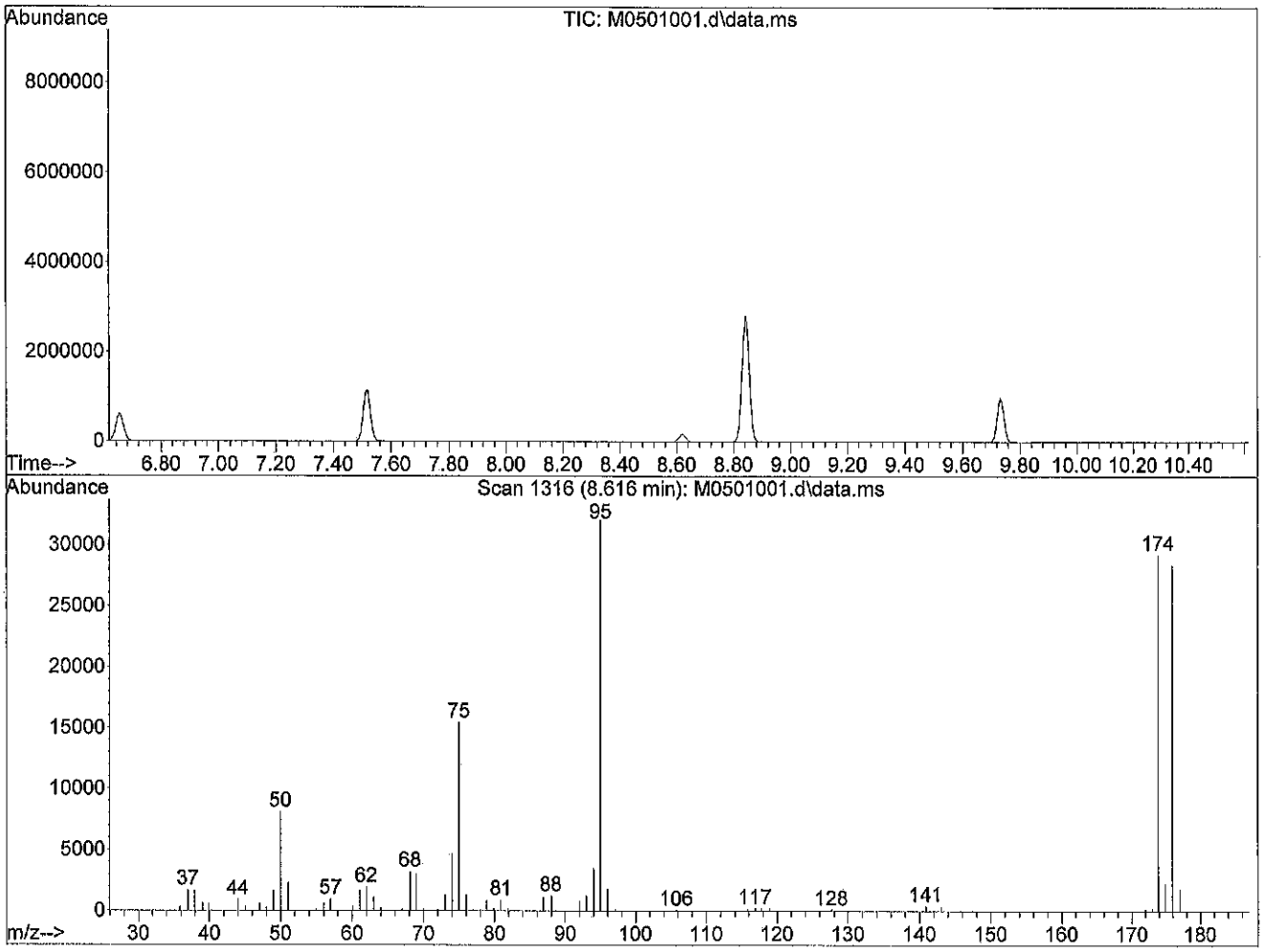
Spectrum Information: Scan 1317

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.9	8167	PASS
75	95	30	80	49.0	16768	PASS
95	95	100	100	100.0	34216	PASS
96	95	5	9	6.7	2283	PASS
173	174	0.00	2	1.2	402	PASS
174	95	50	100	95.2	32568	PASS
175	174	5	9	7.5	2428	PASS
176	174	95	101	96.7	31480	PASS
177	176	5	9	5.6	1770	PASS

Data Path : X:\VOLATILE\MORRIS\DATA\M140501\
Data File : M0501001.d
Acq On : 1 May 2014 7:24 am
Operator :
Sample : 50ng bfb mass tune
Misc : V3-123-1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\M140429W.M
Title :
Last Update : Tue Apr 29 13:05:18 2014



Spectrum Information: Scan 1316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.3	8105	PASS
75	95	30	80	48.2	15462	PASS
95	95	100	100	100.0	32096	PASS
96	95	5	9	5.7	1816	PASS
173	174	0.00	2	0.9	255	PASS
174	95	50	100	91.2	29256	PASS
175	174	5	9	7.7	2260	PASS
176	174	95	101	97.0	28392	PASS
177	176	5	9	6.4	1814	PASS

GC/MS QA-QC Check Report

Tune File : X:\VOLATILE\MORRIS\DATA\M140501\M0501001.d
Tune Time : 1 May 2014 7:24 am

Daily Calibration File : X:\VOLATILE\MORRIS\DATA\M140501\M0501002.d

522984 721879 525996

204660

File	Sample	Surrogate Recovery %			Internal Standard Responses		
M0501003.d							
	SB0501W1	88	98	93	524083	736760	529054
				194560			
M0501004.d							
	SBD0501W1	93	99	94	515554	733834	553906
				213829			
M0501005.d							
	MB0501W1	95	99	92	509176	720453	553393
				213784			
M0501017.d							
	04-199-01b	97	100	99	494974	717070	577797
				241339			
M0501018.d							
	04-199-02b	97	100	98	497406	719948	585889
				250673			
M0501019.d							
	04-199-03b	98	102	101	488065	699989	577666
				250766			
M0501020.d							
	04-199-04b	98	100	98	488625	711943	579762
				249674			
M0501021.d							
	04-199-05b	96	100	99	491553	710676	579286
				250923			
M0501022.d							
	04-199-06b	98	100	99	490364	709114	580094
				249395			

(fails) - fails 12hr time check * - fails criteria

Created: Fri May 02 07:01:04 2014 Morris

Sequence Name: C:\msdchem\1\sequence\M140429.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140430\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line			Sample Name/Misc Info
1)	Sample	1	M0429001 M140328W 50ng bfb mass tune
2)	Sample	2	M0429002 M140328W BLANK
3)	Sample	3	M0429003 M140328W 0.20 PPB ICAL
4)	Sample	4	M0429004 M140328W 1.0 PPB ICAL
5)	Sample	5	M0429005 M140328W 2.0 PPB ICAL
6)	Sample	6	M0429006 M140328W 5.0 PPB ICAL
7)	Sample	7	M0429007 M140328W 10 PPB ICAL
8)	Sample	8	M0429008 M140328W 25 PPB ICAL
9)	Sample	9	M0429009 M140328W BLANK
10)	Sample	10	M0429010 M140328W 50 PPB ICAL
11)	Sample	11	M0429011 M140328W BLANK
12)	Sample	12	M0429012 M140429W BLANK
13)	Sample	13	M0429013 M140429W ICV0429W1
14)	Sample	14	M0429014 M140429W BLANK
15)	Sample	15	M0429015 M140429W 04-180-01a 1:100 SCREEN
16)	Sample	16	M0429016 M140429W 04-180-02a 1:100 SCREEN
17)	Sample	17	M0429017 M140429W 04-180-03a 1:100 SCREEN
18)	Sample	18	M0429018 M140429W 04-180-04a 1:100 SCREEN
19)	Sample	19	M0429019 M140429W 04-180-05a 1:100 SCREEN
20)	Sample	20	M0429020 M140429W 04-199-01a 1:100 SCREEN
21)	Sample	21	M0429021 M140429W 04-199-02a 1:100 SCREEN
22)	Sample	22	M0429022 M140429W 04-199-03a 1:100 SCREEN
23)	Sample	23	M0429023 M140429W 04-199-05a 1:100 SCREEN
24)	Sample	24	M0429024 M140429W 04-204-01a 1:100 SCREEN
25)	Sample	25	M0429025 M140429W 04-204-02a 1:100 SCREEN
26)	Sample	26	M0429026 M140429W 04-204-03a 1:100 SCREEN
27)	Sample	27	M0429027 M140429W 04-204-04a 1:100 SCREEN
28)	Sample	28	M0429028 M140429W 04-204-05a 1:100 SCREEN

Sequence Name: C:\msdchem\1\sequence\M140501.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\M140501\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
( ) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
(X) Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample 1	M0501001 M140429W 50ng bfb mass tune
2)	Sample 2	M0501002 M140429W CCV0501W1
3)	Sample 3	M0501003 M140429W SB0501W1
4)	Sample 4	M0501004 M140429W SBD0501W1
5)	Sample 5	M0501005 M140429W MB0501W1
6)	Sample 6	M0501006 M140429W 04-180-05b
7)	Sample 7	M0501007 M140429W 04-180-06b
8)	Sample 8	M0501008 M140429W 04-180-07b
9)	Sample 9	M0501009 M140429W 04-198-07b
10)	Sample 10	M0501010 M140429W 04-198-01b
11)	Sample 11	M0501011 M140429W 04-198-04b
12)	Sample 12	M0501012 M140429W 04-198-05b
13)	Sample 13	M0501013 M140429W 04-198-03b
14)	Sample 14	M0501014 M140429W 04-198-06b
15)	Sample 15	M0501015 M140429W 04-198-02b
16)	Sample 16	M0501016 M140429W BLANK
17)	Sample 17	M0501017 M140429W 04-199-01b
18)	Sample 18	M0501018 M140429W 04-199-02b
19)	Sample 19	M0501019 M140429W 04-199-03b
20)	Sample 20	M0501020 M140429W 04-199-04b
21)	Sample 21	M0501021 M140429W 04-199-05b
22)	Sample 22	M0501022 M140429W 04-199-06b
23)	Sample 23	M0501023 M140429W 04-255-01a 1:100 SCREEN
24)	Sample 24	M0501024 M140429W 04-255-02a 1:100 SCREEN
25)	Sample 25	M0501025 M140429W 04-255-03a 1:100 SCREEN
26)	Sample 26	M0501026 M140429W 04-255-04a 1:100 SCREEN
27)	Sample 27	M0501027 M140429W 04-255-05a 1:100 SCREEN
28)	Sample 28	M0501028 M140429W 04-255-06a 1:100 SCREEN
29)	Sample 29	M0501029 M140429W 04-255-07a 1:100 SCREEN
30)	Sample 30	M0501030 M140429W 04-255-08a 1:100 SCREEN
31)	Sample 31	M0501031 M140429W 04-255-09a 1:100 SCREEN
32)	Sample 32	M0501032 M140429W 04-255-10a 1:100 SCREEN
33)	Sample 33	M0501033 M140429W 04-255-11a 1:100 SCREEN
34)	Sample 34	M0501034 M140429W 04-255-12a 1:100 SCREEN
35)	Sample 35	M0501035 M140429W 04-255-13a 1:100 SCREEN
36)	Sample 36	M0501036 M140429W 04-255-14a 1:100 SCREEN
37)	Sample 37	M0501037 M140429W 04-255-15a 1:100 SCREEN
38)	Sample 38	M0501038 M140429W 04-255-16a 1:100 SCREEN
39)	Sample 39	M0501039 M140429W 04-255-17a 1:100 SCREEN

OnSite Environmental Inc.

WATER EXTRACTION LOG

Instrument Run #: M140501
Date: 5-1-14

Int. Std./Surr. Stock#: V3-125-12 | V3-125-13
Matrix Spike Stock#: V3-125-17

# of Sample	Date	Sample I.D.	Volume	pH of Sample	Analyst	Miscellaneous
	5-1-14	MB0501W1	25mL	7	SD	
		SB0501W1		7		
		SBD0501W1		7		
1		04-180-05b		2		
2		-06b		2		
3		-07b		2		
4		04-198-01b		2		
5		-02b		2		
6		-03b		2		
7		-04b		2		
8		-05b		2		
9		-06b		2		
10		-07b		2		
11		04-199-01b		2		
12		-02b		2		
13		-03b		2		
14		-04b		2		
15		-05b		2		
16		-06b		2		

SDS-1-14

TITLE

PROJECT

Continued from page 114

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIALS
	VOC ADD'S	V3-115-1							10-1-13	SD
			M-8260-ADD-10X Method 8260 Additions 2.0 mg/mL in MeOH Lot: 213091338 Exp: Jan 25,2014		1 mL					
5										discarded SD 11-19-13
	250 ppm ICAL	V3-115-2	V3-114-4	2000 ppm	2.5 mL	1 mL	250 ppm	MeOH	10-1-13	SD
			V3-114-16							
			V3-115-1							
10	50 ppm ICAL	V3-115-3	V3-115-2	250 ppm	200 µL	1 mL	50 ppm	MeOH	10-1-13	SD
	10 ppm ICAL	V3-115-4	V3-115-3	50 ppm	200 µL	1 mL	10 ppm	MeOH	10-1-13	SD
	5 ppm ICAL	V3-115-5	V3-115-3	50 ppm	100 µL	1 mL	5 ppm	MeOH	10-1-13	SD
	1 ppm ICAL	V3-115-6	V3-115-3	50 ppm	20 µL	1 mL	1 ppm	MeOH	10-1-13	SD
	50 ppm SS (Trace)	V3-115-7	V3-114-16	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD spoke SD 12
15	50 ppm ICV	V3-115-8	V3-101-7	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD discard SD 11-19
			V3-101-8							
			V3-101-9							
	50 ppm CCV	V3-115-9	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-2-13	SD discard
			V3-114-16							SD 10-22
20			V3-115-1							
	2000 ppm SS	V3-115-10							10-7-13	SD
			M-8240/60-SS-10X Surrogate Standard ~~VOA Mix~~ 2.0 mg/mL in MeOH Lot: 212051380 Exp: Jun 1,2022		1 mL					spoke SD 11-7-13
					4 comps. HIGHLY FLAMMABLE			STORAGE Ambient		
25	250 ppm SS	V3-115-11	V3-113-16	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-7-13	SD spoke SD 10-8-13
			V3-115-10							
	25 ppm IS	V3-115-12	V3-114-14	2000 ppm	500 µL	4 mL	250 ppm	MeOH	10-8-13	SD discard SD 11-19-13 and SD 11-7-13
	10 ppm SS	V3-115-13	V3-115-10	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	discard SD 11-7-13
	50 ppm IS	V3-115-14	V3-114-14	2000 ppm	100 µL	4 mL	50 ppm	MeOH	10-8-13	discarded SD 11-7-13
30	.05 ppm ICAL	V3-115-15	V3-115-6	1 ppm	.050 mL	1 mL	.050 ppm	MeOH	10-9-13	discarded SD 11-8-13
	50 ppm CCV	V3-115-16	V3-114-4	2000 ppm	25 µL	1 mL	50 ppm	MeOH	10-10-13	SD discard SD 10-22
			V3-114-16							
			V3-115-1							
	2500 ppm MS	V3-115-17							10-10-13	SD
			CLP-003-R-10X Purgeable Organic Matrix Spiking Soln. 2.5 mg/mL in MeOH Lot: 212011385 Exp: Feb 6,2022		1 mL					
35					5 comps. HIGHLY FLAMMABLE					

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FOR LABORATORY USE ONLY

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

STORAGE Freeze (<-10° C)

2 Danger

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STORAGE Ambient

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WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

STORAGE Freeze (<-10° C)

2 Danger

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SIGNATURE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

TITLE **PROJECT**

Continued from page 120

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
2000 ppm IS	V3-121-1							2-3-14	SD
Albert 250 ppm IS	V3-121-2	V3-120-8 + V3-121-1	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-3-14	SD
50 ppm MS	V3-121-3	V3-115-9	2500 ppm	20 mL	1 mL	50 ppm	MeOH	2-3-14	SD
2000 ppm SS	V3-121-4							2-4-14	SD
Albert 250 ppm SS	V3-120-13 + V3-121-4	2000 ppm	500 mL	4 mL	1 mL 250 ppm	250 ppm MeOH	MeOH	2-4-14	SD
Albert 250 ppm SS	V3-121-5	V3-120-13 + V3-121-4	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-4-14	SD
VOC Cmpds	V3-121-6							2-5-14	SD
VOC ADD IS	V3-121-7							2-5-14	SD
VOC GASES	V3-121-8							2-5-14	SD
250 ppm ICAL	V3-121-9	V3-121-6	2000 ppm	125 mL	1 mL	250 ppm	MeOH	2-5-14	SD
		V3-121-7							
		V3-121-8							
50 ppm ICAL	V3-121-10	V3-121-9	250 ppm	200 mL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ICAL	V3-121-11	V3-121-10	50 ppm	200 mL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ICAL	V3-121-12	V3-121-10	50 ppm	100 mL	1 mL	5 ppm	MeOH	2-5-14	SD

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M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
1 mL
Lot: 212111287
Exp: Nov 19,2022
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
1 mL
Lot: 212051380
Exp: Jun 1,2022
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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M-502A-R3-10X
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
1 mL
Lot: 212081619
Exp: Aug 30,2015
55 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
1 mL
Lot: 213121006
Exp: Apr 3,2014
8 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

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M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
1 mL
Lot: 213041424
Exp: May 2,2016
6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

Continued to page 122

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

TITLE

PROJECT

Continued from page 121

ANALYTE	LAB ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Initials
~~4 ppm ICAL~~	~~V3-122-1~~	~~V3-122-10~~	~~5 ppm~~	~~20 mL~~	~~1 mL~~	~~4 ppm~~	~~MeOH~~	~~2-5-14~~	~~SD~~
~~6 ppm ICAL~~	~~V3-122-2~~	~~V3-122-1~~	~~4 ppm~~	~~5 mL~~	~~0.5 mL~~	~~0.6 ppm~~	~~MeOH~~	~~2-5-14~~	~~SD~~
ICV VOC LIQUIDS	V3-122-3								
ICV VOC ADDs	V3-122-4								
ICV VOC GASES	V3-122-5								
50 ppm ICV	V3-122-6	V3-122-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-5-14	SD
		V3-122-4	"	"	"	"	"	"	"
		V3-122-5	"	"	"	"	"	"	"
100 ppm ACRYL/DCB	V3-122-7	V3-117-11	100 ppm	500 µL	1 mL	100 ppm	MeOH	2-5-14	SD
		V3-117-12	100 ppm	500 µL					
50 ppm ACRYL/DCB	V3-122-8	~~V3-122-7~~ V3-122-11	100 ppm	500 µL	1 mL	50 ppm	MeOH	2-5-14	SD
10 ppm ACRYL/DCB	V3-122-9	V3-122-8	50 ppm	200 µL	1 mL	10 ppm	MeOH	2-5-14	SD
5 ppm ACRYL/DCB	V3-122-10	V3-122-8	50 ppm	100 µL	1 mL	5 ppm	MeOH	2-5-14	SD
~~50 ppm CCV~~	~~V3-122-11~~	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-7-14	SD
		V3-121-7	"	"	"	"	"	"	"
		V3-121-8	"	"	"	"	"	"	"
~~250 ppm IS~~	~~V3-122-12~~	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-10-14	SD
~~250 ppm SS~~	~~V3-122-13~~	V3-121-4	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-18-14	SD
~~2000 ppm IS~~	~~V3-122-14~~							2-24-14	SD
250 ppm IS	V3-122-15	V3-121-1	2000 ppm	500 µL	4 mL	250 ppm	MeOH	2-24-14	SD
		V3-122-14	"	"	"	"	"	"	"

Continued to page 123

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M-502A-R3-10X
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
1 mL
Lot: 213091216
Exp: Sep 19,2016
55 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-ADD-10X
Method 8260 Additions
2.0 mg/mL in MeOH
1 mL
Lot: 214011413
Exp: Jun 3,2014
8 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Freeze (<-10° C)
2 Danger

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M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
1 mL
Lot: 213071142
Exp: Jul 17,2016
6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
1 mL
Lot: 212111287
Exp: Nov 19,2022
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE PROPRIETARY INFORMATION

Continued from page 122

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INITIAL
	50 ppm SS (tune)	V3-123-1	V3-121-4	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-26-14	SD
	50 ppm CCV	V3-123-2	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	2-27-14	SD
			V3-121-7							
5			V3-121-8							
waldo	50 ppm IS	V3-123-3	V3-122-14	2000 ppm	100 mL	4 mL	50 ppm	MeOH	2-27-14	EEN
waldo	50 ppm SS	V3-123-4	V3-121-4	2000 ppm	100 mL	4 mL	50 ppm	MeOH	2-27-14	EEN
	2000 ppm SS	V3-123-5							2-28-14	SD
10									spent	
									3-2-14	
Albert	250 ppm SS	V3-123-6	V3-121-4							
			V3-123-5	2000 ppm	500 mL	4 mL	250 ppm	MeOH	2-28-14	SD
	50 ppm IS	V3-123-7	V3-122-14	2000 ppm	625 mL	25 mL	50 ppm	MeOH	3-6-14	SD
Morris	2000 ppm IS	V3-123-8							3-10-14	SD
15									spent	
									3-12-14	
Albert	250 ppm IS	V3-123-9	V3-122-14	2000 ppm	500 mL	4 mL	250 ppm	MeOH	3-10-14	SD
			V3-123-8							
Albert	250 ppm SS	V3-123-10	V3-123-5	2000 ppm	500 mL	4 mL	250 ppm	MeOH	3-10-14	SD
	50 ppm CCV	V3-123-11	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-10-14	SD
			V3-121-7							
25			V3-121-8							
	50 ppm CCV	V3-123-12	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-121-8							
	VOC GASES	V3-123-13							3-13-14	SD
30										
	50 ppm CCV	V3-123-14	V3-121-6	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-13-14	SD
			V3-121-7							
			V3-123-13							
35										

Continued to page

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M-8240/60-SS-10X
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028
Exp: Nov 6,2023
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger!!

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M-8260-IS-10X
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287
Exp: Nov 19,2022
1 mL
4 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger!!

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502B-10X
Volatile Organic Cmpds - Gases
2.0 mg/mL in MeOH
Lot: 213041424
Exp: May 2,2016
1 mL
6 comps.
HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of Californ to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrig (0-5° C)
2 Danger!!

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

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TITLE

PROJECT

Continued from page 123	Lab ID	Stock ID	Stock conc.	Stock Vol.	Final Vol.	Final conc.	Solvent	Date	Initials
Analyte									
250 ppm IS/SS	V3-124-1	V3-123-8	2000 ppm	250 µL	2 mL	250 ppm	MeOH	3-14-14	EEM
		V3-123-5		250 µL					
~~50 ppm MS~~	~~V3-124-2~~	~~V3-115-7~~	~~2500 ppm~~	~~200 µL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~ discarded 3-15-14
50 ppm ICV	V3-124-3	V3-123-3	2000 ppm	25 mL	1 mL	50 ppm	MeOH	3-19-14	SD
		V3-123-4							
		V3-123-5							
VOC Liquids	V3-124-4							3-19-14	SD
VOC ADD's	V3-124-5							3-19-14	SD
250 ppm ICAL	V3-124-6	V3-123-13	2000 ppm	125 mL	1 mL	250 ppm	MeOH	3-19-14	SD
		V3-124-4							
		V3-124-5							
50 ppm ICAL	V3-124-7	V3-124-6	250 ppm	200	1 mL	50 ppm	MeOH	3-19-14	SD
10 ppm ICAL	V3-124-8	V3-124-7	50 ppm	200	1 mL	10 ppm	MeOH	3-19-14	SD
5 ppm ICAL	V3-124-9	V3-124-7	50 ppm	100	1 mL	5 ppm	MeOH	3-19-14	SD
1 ppm ICAL	V3-124-10	V3-124-7	50 ppm	20	1 mL	1 ppm	MeOH	3-19-14	SD
~~CCV 50 ppm~~	~~V3-124-11~~	~~V3-123-13~~	~~2000 ppm~~	~~25 mL~~	~~1 mL~~	~~50 ppm~~	~~MeOH~~	~~3-19-14~~	~~SD~~ discarded 3-15-14
		V3-124-4							
		V3-124-5							
2000 ppm SS	V3-124-12							3-31-14	SD
~~250 ppm IS~~	~~V3-124-13~~	~~V3-123-8~~	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-31-14~~	~~SD~~ discarded 3-31-14
~~250 ppm SS~~	~~V3-124-14~~	~~V3-123-5~~	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-31-14~~	~~SD~~ spoiled 3-31-14
		V3-124-12							
2000 ppm IS	V3-124-15							3-31-14	SD

Continued to page 125

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-502A-R3-10X 1 mL
Volatile Organic Compounds - Liquids
2000 µg/mL in Methanol
Lot: 212081619 55 comps.
Exp: Aug 30,2015 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or oth reproductive harm.
STORAGE Refrid (0-5° C)
2 Danger

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-ADD-10X 1 mL
Method 8260 Additions
2.0 mg/mL in MeOH
Lot: 214021286 8 comps.
Exp: Jun 28,2014 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Storage: Freeze (<-10° C)
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6,2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19,2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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TITLE **PROJECT**

Continued from page 124 3/31/14

	ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INIT.
Albert	~~250 ppm IS~~	~~V3-125-1~~	~~V3-123-8~~ V3-104-15	2000 ppm	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-31-14~~	SD
Albert	~~250 ppm SS~~	~~V3-125-2~~	~~V3-124-12~~	~~2000 ppm~~	~~500 µL~~	~~4 mL~~	~~250 ppm~~	~~MeOH~~	~~3-31-14~~	~~SD~~
Albert	~~250 ppm IS~~	~~V3-125-3~~	~~V3-124-15~~	~~2000 ppm~~	~~250 µL~~ 25 µL	~~2 mL~~ 1mL 25 µL	~~250 ppm~~ 50 ppm 1mL	~~MeOH~~	~~4-9-14~~	~~SD~~
	~~50 ppm CCV~~	~~V3-125-4~~	~~V3-123-13~~	~~2000 ppm~~	~~20 µL~~	~~1mL~~	~~50 ppm~~	~~MeOH~~	~~4-9-14~~	~~SD~~
			V3-124-4							
			V3-124-5							
10	~~50 ppm M.S.~~	~~V3-125-5~~	~~V3-115-17~~	~~2500 ppm~~	~~20 µL~~	~~1mL~~	~~50 ppm~~	~~MeOH~~	~~4-9-14~~	~~SD~~
Albert	~~250 ppm SS~~	~~V3-125-6~~	~~V3-124-12~~	~~2000 ppm~~	~~250 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-14-14~~	~~SD~~
Albert	~~250 ppm IS~~	~~V3-125-7~~	~~V3-124-15~~	~~2000 ppm~~	~~250 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-16-14~~	~~SD~~
	~~20000 ppm IS~~	~~V3-125-8~~							4-21-14	SD
15										
	~~2000 ppm SS~~	~~V3-125-9~~							4-21-14	SD
20										
Albert	~~250 ppm IS~~	~~V3-125-10~~	~~V3-124-15~~	~~2000 ppm~~	~~250 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-21-14~~	~~SD~~
Albert	~~250 ppm SS~~	~~V3-125-11~~	~~V3-125-9~~	~~2000 ppm~~	~~250 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-21-14~~	~~SD~~
Morris	50 ppm IS	V3-125-12	V3-125-8	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
Morris	50 ppm SS	V3-125-13	V3-125-9	2000 ppm	625 µL	25 mL	50 ppm	MeOH	4-21-14	SD
25	50 ppm CCV	V3-125-14	V3-123-13	2000 ppm	25 mL	1 mL	50 ppm	MeOH	4-22-14	SD
			V3-124-4							
			V3-124-5							
Albert	~~250 ppm IS~~	~~V3-125-15~~	~~V3-125-8~~	~~2000 ppm~~	~~250 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-25-14~~	~~SD~~
Albert	~~250 ppm SS~~	~~V3-125-16~~	~~V3-125-9~~	~~2000 ppm~~	~~250 µL~~	~~2 mL~~	~~250 ppm~~	~~MeOH~~	~~4-25-14~~	~~SD~~
30	50 ppm M.S.	V3-125-17	V3-115-17	2500 ppm	20 µL	1 mL	50 ppm	MeOH	4-25-14	SD
	20000 ppm SS	V3-125-18							4-28-14	SD
Albert	~~250 ppm SS~~	~~V3-125-19~~	~~V3-125-9~~ V3-125-16	2000 ppm	250 µL	2 mL	250 ppm	MeOH	4-28-14	SD

Continued to page 126

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8260-IS-10X 1 mL
Internal Standard Mix
2.0 mg/mL in MeOH
Lot: 212111287 4 comps.
Exp: Nov 19, 2022 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
Storage: Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6, 2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8240/60-SS-10X 1 mL
Surrogate Standard VOA Mix
2.0 mg/mL in MeOH
Lot: 213111028 4 comps.
Exp: Nov 6, 2023 HIGHLY FLAMMABLE
FOR LABORATORY USE ONLY
STORAGE Ambient
2 Danger

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PROJECT

Continued from page 125

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC.	SOLVENT	DATE	INITIALS
50 ppm CCV	V3126-1	V3-1313	2000 ppm	25 mL	1 mL	50 ppm	MeOH	4-28-14	SD
		V3124-4	"	"	"	"	"	"	"
		V3124-5	"	"	"	"	"	"	"
250 ppm LS	V3-1262	V3-125-8	2000 ppm	250 mL	2 mL	250 ppm	MeOH	5-1-14	SD
250 ppm SS	V3126-3	V3-125-18	20000 ppm	250 mL	2 mL	250 ppm	MeOH	5-1-14	SD

Continued to page

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PROPRIETARY INFORMATION

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 5, 2014

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0180-121-09
Laboratory Reference No. 1404-204

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on April 24, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: May 5, 2014
Samples Submitted: April 24, 2014
Laboratory Reference: 1404-204
Project: 0180-121-09

Case Narrative

Samples were collected on April 23, 2014 and received by the laboratory on April 24, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: May 5, 2014
Samples Submitted: April 24, 2014
Laboratory Reference: 1404-204
Project: 0180-121-09

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
PZ-723-140423	04-204-01	Water	4-23-14	4-24-14	
PZ-726-140423	04-204-02	Water	4-23-14	4-24-14	
RPZ-730-140423	04-204-03	Water	4-23-14	4-24-14	
RPZ-731-140423	04-204-04	Water	4-23-14	4-24-14	
PZ-728-140423	04-204-05	Water	4-23-14	4-24-14	
TB-1-140423	04-204-06	Water	4-23-14	4-24-14	

Date of Report: May 5, 2014
Samples Submitted: April 24, 2014
Laboratory Reference: 1404-204
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PZ-723-140423**					
Laboratory ID:	04-204-01					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*85*	*62-122*				
Toluene-d8	*98*	*70-120*				
4-Bromofluorobenzene	*92*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 24, 2014
Laboratory Reference: 1404-204
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PZ-726-140423**					
Laboratory ID:	04-204-02					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	3.1	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*91*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 24, 2014
Laboratory Reference: 1404-204
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RPZ-730-140423**					
Laboratory ID:	04-204-03					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*62-122*				
Toluene-d8	*102*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 24, 2014
Laboratory Reference: 1404-204
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RPZ-731-140423**					
Laboratory ID:	04-204-04					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	0.65	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*95*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 24, 2014
Laboratory Reference: 1404-204
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PZ-728-140423**					
Laboratory ID:	04-204-05					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	0.23	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	4.2	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*95*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 24, 2014
Laboratory Reference: 1404-204
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TB-1-140423**					
Laboratory ID:	04-204-06					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*92*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*95*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 24, 2014
Laboratory Reference: 1404-204
Project: 0180-121-09

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0502W1					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*62-122*				
Toluene-d8	*98*	*70-120*				
4-Bromofluorobenzene	*95*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 24, 2014
Laboratory Reference: 1404-204
Project: 0180-121-09

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0502W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.3**	**9.83**	10.0	10.0	103	98	63-142	5	17	
Benzene	**9.88**	**9.71**	10.0	10.0	99	97	78-125	2	15	
Trichloroethene	**10.0**	**9.34**	10.0	10.0	100	93	80-125	6	15	
Toluene	**10.1**	**9.76**	10.0	10.0	101	98	80-125	3	15	
Chlorobenzene	**10.9**	**10.6**	10.0	10.0	109	106	80-140	3	15	
Surrogate:										
Dibromofluoromethane					*87*	*89*	*62-122*			
Toluene-d8					*99*	*98*	*70-120*			
4-Bromofluorobenzene					*91*	*95*	*71-120*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEI
Project Number: 0180-121-09
Project Name: Palermo
Project Manager: Nick Rohrbach
Sampled by: BMB/HLM

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days)
(TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 04-204

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C Project List VOCs	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A						% Moisture
1	PZ-723-140423	4/23/14	1015	GW	3					X																	
2	PZ-726-140423		1055		3					X																	
3	RPZ-730-140423		1155		3					X																	
4	RPZ-731-140423		1400		3					X																	
5	PZ-728-140423		1500		3					X																	
6	TB-1-140423				2					X																	

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEI	4/24/14	835	
Received		SPL	4/24	835	
Relinquished		"	"	1240	
Received		OSE	4/24/14	1240	
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☑ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 080-121-09

OnSite Project Number: 04-204

Initiated by: AMV

Date Initiated: 4/24/14

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	(Yes)	No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	(Yes)	No	N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	(Yes)	No	N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	(Yes)	No		1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 2		
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	(N/A)			
1.7 How were the samples delivered?	Client	(Courier)	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	(Yes)	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	(Yes)	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	(Yes)	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	(Yes)	No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	(Yes)	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	(No)		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	(No)		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	(No)		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	(Yes)	No		1 2 3 4
3.4 Have the samples been correctly preserved?	(Yes)	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	(Yes)	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	(Yes)	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	(No)		1 2 3 4
3.8 Was method 5035A used?	Yes	No	(N/A)	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		(N/A)	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 5, 2014

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0180-121-09
Laboratory Reference No. 1404-255

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on April 30, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

Case Narrative

Samples were collected on April 29, 2014 and received by the laboratory on April 30, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
CO-8-140429	04-255-01	Water	4-29-14	4-30-14	
CO-7-140429	04-255-02	Water	4-29-14	4-30-14	
CO-6-140429	04-255-03	Water	4-29-14	4-30-14	
CO-5-140429	04-255-04	Water	4-29-14	4-30-14	
CO-4-140429	04-255-05	Water	4-29-14	4-30-14	
CO-3-140429	04-255-06	Water	4-29-14	4-30-14	
CO-2-140429	04-255-07	Water	4-29-14	4-30-14	
CO-1-140429	04-255-08	Water	4-29-14	4-30-14	
CB-3-140429	04-255-09	Water	4-29-14	4-30-14	
CB-2-140429	04-255-10	Water	4-29-14	4-30-14	
CB-1-140429	04-255-11	Water	4-29-14	4-30-14	
360-140429	04-255-12	Water	4-29-14	4-30-14	
350-140429	04-255-13	Water	4-29-14	4-30-14	
361-140429	04-255-14	Water	4-29-14	4-30-14	
364-140429	04-255-15	Water	4-29-14	4-30-14	
356-140429	04-255-16	Water	4-29-14	4-30-14	
DUP-1-140429	04-255-17	Water	4-29-14	4-30-14	
RIN-1-140429	04-255-18	Water	4-29-14	4-30-14	
TB-1-140429	04-255-19	Water	4-29-14	4-30-14	

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CO-8-140429**					
Laboratory ID:	04-255-01					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*97*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CO-7-140429**					
Laboratory ID:	04-255-02					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	5.2	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*96*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CO-6-140429**					
Laboratory ID:	04-255-03					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	8.4	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	10	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*97*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CO-5-140429**					
Laboratory ID:	04-255-04					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	14	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	9.1	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*97*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CO-4-140429**					
Laboratory ID:	04-255-05					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	15	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	7.0	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*62-122*				
Toluene-d8	*101*	*70-120*				
4-Bromofluorobenzene	*97*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CO-3-140429**					
Laboratory ID:	04-255-06					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	14	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	5.0	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*62-122*				
Toluene-d8	*102*	*70-120*				
4-Bromofluorobenzene	*99*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CO-2-140429**					
Laboratory ID:	04-255-07					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	12	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	4.6	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*62-122*				
Toluene-d8	*101*	*70-120*				
4-Bromofluorobenzene	*98*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CO-1-140429**					
Laboratory ID:	04-255-08					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	12	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	4.6	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*97*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CB-3-140429**					
Laboratory ID:	04-255-09					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	11	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	4.4	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*96*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CB-2-140429**					
Laboratory ID:	04-255-10					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	11	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	4.2	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*62-122*				
Toluene-d8	*102*	*70-120*				
4-Bromofluorobenzene	*97*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CB-1-140429**					
Laboratory ID:	04-255-11					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	12	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	4.6	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*98*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**360-140429**					
Laboratory ID:	04-255-12					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	11	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	4.0	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*99*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**350-140429**					
Laboratory ID:	04-255-13					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	1.2	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*62-122*				
Toluene-d8	*101*	*70-120*				
4-Bromofluorobenzene	*99*	*71-120*				

Date of Report: May 5, 2014
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VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**361-140429**					
Laboratory ID:	04-255-14					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	0.95	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	0.30	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*62-122*				
Toluene-d8	*99*	*70-120*				
4-Bromofluorobenzene	*99*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**364-140429**					
Laboratory ID:	04-255-15					
Vinyl Chloride	ND	0.20	EPA 8260C	5-3-14	5-3-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-3-14	5-3-14	
Trichloroethene	0.50	0.20	EPA 8260C	5-3-14	5-3-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*62-122*				
Toluene-d8	*97*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**356-140429**					
Laboratory ID:	04-255-16					
Vinyl Chloride	ND	0.20	EPA 8260C	5-3-14	5-3-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-3-14	5-3-14	
Trichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*62-122*				
Toluene-d8	*98*	*70-120*				
4-Bromofluorobenzene	*95*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DUP-1-140429**					
Laboratory ID:	04-255-17					
Vinyl Chloride	ND	0.20	EPA 8260C	5-3-14	5-3-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-3-14	5-3-14	
Trichloroethene	14	0.20	EPA 8260C	5-3-14	5-3-14	
Tetrachloroethene	8.5	0.20	EPA 8260C	5-3-14	5-3-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*62-122*				
Toluene-d8	*101*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RIN-1-140429**					
Laboratory ID:	04-255-18					
Vinyl Chloride	ND	0.20	EPA 8260C	5-3-14	5-3-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-3-14	5-3-14	
Trichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*62-122*				
Toluene-d8	*101*	*70-120*				
4-Bromofluorobenzene	*99*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TB-1-140429**					
Laboratory ID:	04-255-19					
Vinyl Chloride	ND	0.20	EPA 8260C	5-3-14	5-3-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-3-14	5-3-14	
Trichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*62-122*				
Toluene-d8	*100*	*70-120*				
4-Bromofluorobenzene	*97*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0502W1					
Vinyl Chloride	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Trichloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-2-14	5-2-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*62-122*				
Toluene-d8	*98*	*70-120*				
4-Bromofluorobenzene	*95*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0503W1					
Vinyl Chloride	ND	0.20	EPA 8260C	5-3-14	5-3-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	5-3-14	5-3-14	
Trichloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
Tetrachloroethene	ND	0.20	EPA 8260C	5-3-14	5-3-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*62-122*				
Toluene-d8	*98*	*70-120*				
4-Bromofluorobenzene	*96*	*71-120*				

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0502W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.3**	**9.83**	10.0	10.0	103	98	63-142	5	17	
Benzene	**9.88**	**9.71**	10.0	10.0	99	97	78-125	2	15	
Trichloroethene	**10.0**	**9.34**	10.0	10.0	100	93	80-125	6	15	
Toluene	**10.1**	**9.76**	10.0	10.0	101	98	80-125	3	15	
Chlorobenzene	**10.9**	**10.6**	10.0	10.0	109	106	80-140	3	15	
Surrogate:										
Dibromofluoromethane					*87*	*89*	*62-122*			
Toluene-d8					*99*	*98*	*70-120*			
4-Bromofluorobenzene					*91*	*95*	*71-120*			

Date of Report: May 5, 2014
Samples Submitted: April 30, 2014
Laboratory Reference: 1404-255
Project: 0180-121-09

VOLATILES by EPA 8260C
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	04-255-15										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	**9.63**	**9.33**	10.0	10.0	ND	96	93	57-133	3	15	
Benzene	**9.51**	**9.59**	10.0	10.0	ND	95	96	78-117	1	15	
Trichloroethene	**9.68**	**9.71**	10.0	10.0	0.503	92	92	77-120	0	15	
Toluene	**9.50**	**9.66**	10.0	10.0	ND	95	97	80-115	2	15	
Chlorobenzene	**10.2**	**10.1**	10.0	10.0	ND	102	101	80-122	1	15	
Surrogate:											
Dibromofluoromethane						*94*	*94*	*62-122*			
Toluene-d8						*98*	*98*	*70-120*			
4-Bromofluorobenzene						*95*	*97*	*71-120*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEI
Project Number: 0180-121-09
Project Name: Palermo
Project Manager: Nick Rohrbach
Sampled by: LML/HLM/JCD/BMB

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 04-255

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C Project list VOCs	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A						% Moisture
1	CO-8-140429	4/29/14	0855	W	3					X																
2	CO-7-140429		0920		3																					
3	CO-6-140429		1150		3																					
4	CO-5-140429		0950		3																					
5	CO-4-140429		1025		3																					
6	CO-3-140429		1045		3																					
7	CO-2-140429		1120		3																					
8	CO-1-140429		1130		3																					
9	CB-3-140429		1245		3																					
10	CB-2-140429		1305		3																					

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	[signature]	GEI	4/30/14	835	
Received	[signature]	Spm	4/30/14	835	
Relinquished	[signature]	"	"	1225	
Received	[signature]	CORE	4/30/14	1225	
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☒ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☑

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEI
Project Number: 0180-121-09
Project Name: Palermo
Project Manager: Nick Rohrback
Sampled by: LML/HLM/JCD/BMB

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 04-255

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C proj list	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
11	CB-1-140429	4/29/14	1325	W	3					X												
12	360-140429		1345		3																	
13	350-140429		1400		3																	
14	361-140429		1405		3																	
15	364-140429		1515		9																	
16	356-140429		1450		3																	
17	DUP-1-140429				3																	
18	RIN-1-140429		1540		3																	
19	TB-1-140429				2																	

	Signature	Company	Date	Time
Relinquished	Lara Linde	GEI	4/30/14	835
Received		JPdy	4/30/14	835
Relinquished	"	"	"	1225
Received		OSE	4/30/14	1228
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
364-140429 triplicate volume for MS/MSD

Chromatograms with final report ☐

Data Package: Standard ☒ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☑ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 0180-121-09

OnSite Project Number: 04-255

Initiated by: MM

Date Initiated: 4/30/14

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 3	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A		
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No	1 2 3 4
2.2 Was the COC legible and written in permanent ink?	Yes	No	1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No	1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No	1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	Yes	No	1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No	1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

APPENDIX D
Report Limitations and Guidelines for Use

APPENDIX D
REPORT LIMITATIONS AND GUIDELINES FOR USE

This appendix provides information to help you manage your risks with respect to the use of this report.

Report Use and Reliance

This report has been prepared for the Washington State Department of Transportation and can be distributed to Client's authorized agents and regulatory agencies as needed for the project.

GeoEngineers structures our services to meet the specific needs of our clients. Accordingly, no party other than the Washington State Department of Transportation may rely on the product of our services unless we agree to such reliance in advance and in writing. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client for this project and generally accepted environmental practices in this area at the time this report was prepared.

This report should not be applied for any purpose or project except the one originally contemplated. If important changes are made to the project or property after the date of this report, we recommend that GeoEngineers be given the opportunity to review our interpretations and recommendations, and then we can provide written modifications or confirmation, as appropriate.

Information Provided by Others

GeoEngineers has relied upon certain data or information provided or compiled by others in the performance of our services. Although we used sources that are believed to be trustworthy, GeoEngineers cannot warrant or guarantee the accuracy or completeness of information provided or compiled by others.

Professional Judgment

It is important to recognize that the environmental sciences practices are less exact than other engineering and natural science disciplines. By necessity, GeoEngineers uses its professional judgment in arriving at our conclusions and recommendations. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce the risk of misunderstandings regarding the inexact nature of our professional services. Please confer with GeoEngineers if you need to know how these "Report Limitations and Guidelines for Use" apply to your project or site.